

KONTROL "large"



Watch our
support video



KONTROL "small"

Swing gate openers Installation manual



EVE actuators



HC actuators














SW actuators



REV 10 29-11-16 ENG

ducatihome.it

KIT CONTENTS:												
	HC418	HC312	HC412	HC512	HC612	SW400	SW400T	EVO700	EVO700T	EVE900	EVE 900T	
HC 819	2x (12V)	-	-	-	-	-	-	-	-	-	-	
HC 812-300	-	2x (12V)	-	-	-	-	-	-	-	-	-	
HC 812-400	-	-	2x (12V)	-	-	-	-	-	-	-	-	
HC 812-300 SOLAR	-	2x (12V)	-	-	-	-	-	-	-	-	-	
HC 812-400 SOLAR	-	-	2x (12V)	-	-	-	-	-	-	-	-	
HC 812-400 PRO	-	-	2x (24V)	-	-	-	-	-	-	-	-	
HC 812-500 PRO	-	-	-	2x (24V)	-	-	-	-	-	-	-	
HC 812-600 PRO	-	-	-	-	2x (24V)	-	-	-	-	-	-	
SW 3000	-	-	-	-	-	2x (12V)	-	-	-	-	-	
SW 7000	-	-	-	-	-	2x (12V)	-	-	-	-	-	
SW 7000 T	-	-	-	-	-	-	2x (12V)	-	-	-	-	
SW 7000 T SOLAR	-	-	-	-	-	-	2x (12V)	-	-	-	-	
EVO 748	-	-	-	-	-	-	-	2x (12 or 24V)	-	-	-	
EVO 748 T	-	-	-	-	-	-	-	-	2x (12 or 24V)	-	-	
EVO 748 SOLAR	-	-	-	-	-	-	-	2x (12 or 24V)	-	-	-	
EVO 748 T SOLAR	-	-	-	-	-	-	-	-	2x (12 or 24V)	-	-	
EVE 01	-	-	-	-	-	-	-	-	-	2x (12 or 24V)	-	
EVE 01 T	-	-	-	-	-	-	-	-	-	-	2x (12 or 24V)	
EVE 01 SOLAR	-	-	-	-	-	-	-	-	-	2x (12 or 24V)	-	
EVE 01 T SOLAR	-	-	-	-	-	-	-	-	-	-	2x (12 or 24V)	
ADDITIONAL CUSTOMIZED KIT COMPOSITIONS COULD BE ALSO AVAILABLE CHECK KIT COMPOSITION ON YOUR ORDER												

																
KONTROL 7851 CTH41	KONTROL 7855 CTH42	KONTROL 7857 CTH44	KOTROL 9048 CTH48	KONTROL 9048/24V	FIXING BRACKET SET	R15 Unl-cking key	remote control 6203R /6204	key switch SW5000	SW6500 keypad	TASTY 6500 keypad	FLASH 7500 blinker	SW 7500 blinker	solar panel with fixing bracket	battery	pair of sa-fety beam / photocells	pair of sa-fety beam / photocells
1x	-	-	-	-	1 x	1x	2x	1x	-	-	-	1x	-	-	-	-
-	1x	-	-	-	1 x	1x	2x	1x	-	-	-	1x	-	-	-	-
-	1x	-	-	-	1 x	1x	2x	1x	-	-	-	1x	-	-	1x	-
-	-	1x	-	-	1 x	1x	2x	1x	-	-	-	1x	1x	1x	-	-
-	-	1x	-	-	1 x	1x	2x	1x	-	-	-	1x	1x	1x	1x	-
-	-	-	-	1x	1 x	1x	2x	1x	-	-	-	1x	-	-	1x	-
-	-	-	-	1x	1 x	1x	2x	1x	-	-	-	1x	-	-	1x	-
-	-	-	-	1x	1 x	1x	2x	1x	-	-	-	1x	-	-	1x	-
1x	-	-	-	-	1 x	1x	2x	1x	-	-	1x	-	-	-	-	-
-	1x	-	-	-	1 x	1x	2x	1x	-	-	1x	-	-	-	-	-
-	1x	-	-	-	1 x	1x	2x	1x	-	-	1x	-	-	-	-	-
-	-	1x	-	-	1 x	1x	2x	-	-	-	1x	-	1x	1x	-	-
-	-	-	1x (12 or 24V)		1 x	1x	2x	-	-	-	1x	-	-	-	-	1x
-	-	-	1x (12 or 24V)		1 x	1x	2x	-	-	1x	1x	-	-	-	-	1x
-	-	-	1x (12 or 24V)		1 x	1x	2x	-	-	1x	1x	-	1x	1x12v 2 x 24V	-	1x
-	-	-	1x (12 or 24V)		1 x	1x	2x	-	-	1x	1x	-	1x	1x12v 2 x 24V	-	1x
-	-	-	1x (12 or 24V)		1 x	1x	1x	-	-	-	1x	-	-	-	-	-
-	-	-	1x (12 or 24V)		1 x	1x	1x	-	-	-	1x	-	-	-	-	-
-	-	-	1x (12 or 24V)		1 x	1x	1x	-	-	-	1x	-	1x	1x12v 2 x 24V	-	-
-	-	-	1x (12 or 24V)		1 x	1x	1x	-	-	-	1x	-	1x	1x12v 2 x 24V	-	-

How to read this general manual

This manual contains the general instructions for all HC, SW, EVE And ARTIKO openers and is divided into three general sections.

- Mechanical installation of the motors.
- Installation of the control box, wiring and control board adjustments
- Accessories instructions.

Identify your actuator model and your electronic board model through the labels that you'll find on your control box and actuator and follow the instructions



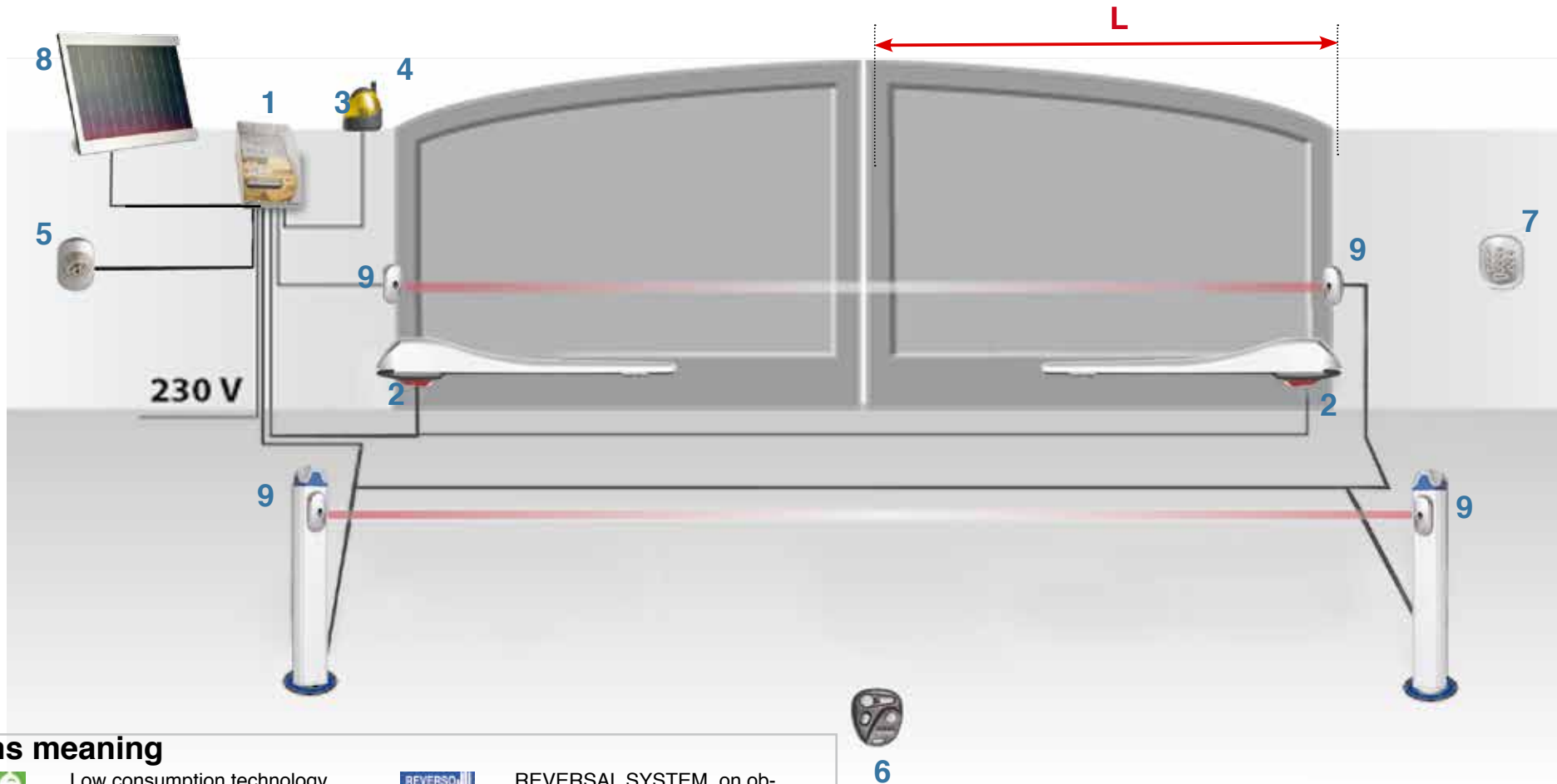
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DUCATI actuator's technical data comparison

actuator model	see page	power supply	W	N	stroke (mm)	speed (cm/sec)	telescopic tube	ideal for continuous use	working temperature	on board mechanical limit for closed position	on board mechanical limit for open position	on board electric limit for closed & open position	Max. wing lenght (L)	Max wing weight	Max. opening angle	Manual release system	Compatible with key protected manual release optional accessory	Automatic wing lock
HC 312	5	12V	60W	1200	300	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	2,5m	250 kg	125°	✓	-	✓
HC 312/ 24 V	5	24V	120W	2400	300	2	✓	✓	-20°C/+60°C	-	FC version only	-	2,5m	350 kg	125°	✓	-	✓
HC 412	6	12V	60W	1200	400	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	3,5m	350 kg	137°	✓	-	✓
HC 412 / 24V	6	24V	120W	2400	400	2	✓	✓	-20°C/+60°C	-	FC version only	-	3,5m	450 kg	137°	✓	-	✓
HC 512	7	12V	60W	1200	500	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	4m	400 kg	137°	✓	-	✓
HC 512 / 24V	7	24V	120W	2400	500	2	✓	✓	-20°C/+60°C	-	FC version only	-	4m	500 kg	137°	✓	-	✓
HC 612	8	12V	60W	1200	600	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	5m	400 kg	137°	✓	-	✓
HC 612/ 24V	8	24V	120W	2400	600	2	✓	✓	-20°C/+60°C	-	FC version only	-	5m	500 kg	137°	✓	-	✓
HC 418	9	12V	60W	1200	400	1,5	-	✓	-20°C/+60°C	FC version only	FC version only	-	2m	200 kg	120°	✓	-	✓
HC 418 /24V	9	24V	120W	2400	400	2	-	✓	-20°C/+60°C	FC version only	FC version only	-	2m	300 kg	120°	✓	-	✓
HC 518	10	12V	60W	1200	500	1,5	-	✓	-20°C/+60°C	FC version only	FC version only	-	3m	350 kg	125°	✓	-	✓
HC518 /24V	10	24V	120W	2400	500	2	-	✓	-20°C/+60°C	FC version only	FC version only	-	3m	450 kg	125°	✓	-	✓
HC 618	11	12V	60W	1200	600	1,5	-	✓	-20°C/+60°C	-FC version only	FC version only	-	4m	350kg	130°	✓	-	✓
HC618 / 24V	11	24V	120W	2400	600	2	-	✓	-20°C/+60°C	FC version only	FC version only	-	4m	450kg	130°	✓	-	✓
SW400	12	12V	60W	1200	400	1,5	-	✓	-20°C/+60°C	FC version only	FC version only	-	2m	200 kg	120°	✓	SW LOCK	✓
SW400 / 24V	12	24V	120W	2400	400	2	-	✓	-20°C/+60°C	FC version only	FC version only	-	2m	300 kg	120°	✓	SW LOCK	✓
SW400 T	13	12V	60W	1200	400	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	2,6m	260 kg	135°	✓	SW LOCK	✓
SW400 T /24V	13	24V	120W	2400	400	2	✓	✓	-20°C/+60°C	FC version only	FC version only	-	2,6m	360 kg	135°	✓	SW LOCK	✓
EVO 700	14	12V	60W	1200	500	1,5	-	✓	-20°C/+60°C	FC version only	FC version only	-	4m	350 kg	140°	✓	SW LOCK	✓
EVO 700 /24V	14	24V	120W	2400	500	2	-	✓	-20°C/+60°C	FC version only	FC version only	✓	4m	450 kg	140°	✓	SW LOCK	✓
EVO 700T	15	12V	60W	1200	500	1,5	✓	✓	-20°C/+60°C	-	FC version only	-	5m	350 kg	135°	✓	SW LOCK	✓
EVO 700T /24V	15	24V	120W	2400	500	2	✓	✓	-20°C/+60°C	-	FC version only	✓	5m	450 kg	135°	✓	SW LOCK	✓
EVE 900	16	12V	60W	1200	500	1,5	-	✓	-20°C/+60°C	✓	✓	FCA version only	4m	450 kg	130°	✓	EVE LOCK	✓
EVE 900 /24V	16	24V	120W	2400	500	2	-	✓	-20°C/+60°C	✓	✓	FCA version only	4m	550 kg	130°	✓	EVE LOCK	✓
EVE 900 T	17	12V	60W	1200	500	1,5	✓	✓	-20°C/+60°C	✓	✓	FC version Aonly	5m	400 kg	135°	✓	EVE LOCK	✓
EVE 900 T /24V	17	24V	120W	2400	500	2	✓	✓	-20°C/+60°C	✓	✓	FCA version only	5m	500 kg	135°	✓	EVE LOCK	✓

GENERAL INSTALLATION DIAGRAM



Icons meaning



Low consumption technology



Compatible with solar panel power supply



Compatible with emergency battery



AUTO-LOCK SYSTEM
Automatic lock the gate when closed



REVERSAL SYSTEM on obstacle detection



PEDESTRIAN access.
opens one wing partially



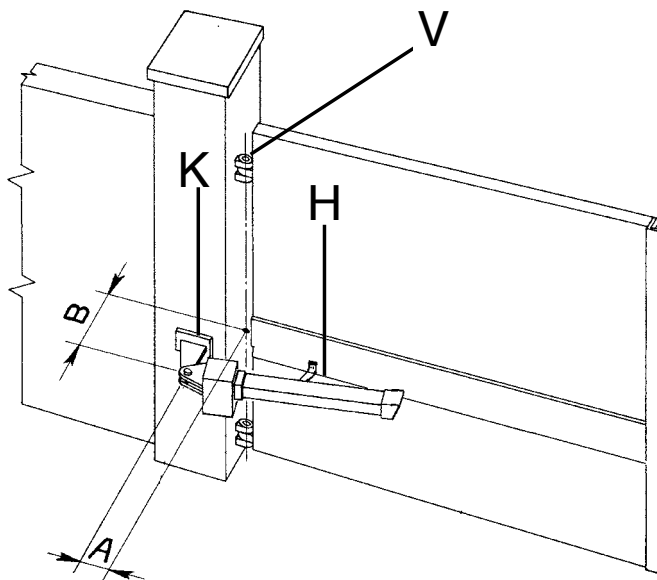
SOFT-STOP
double speed with soft approaching

PULL TO OPEN OPERATION (gate that opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.

Pillar dimension:

How this influences your gate opener system.
 Determine the ideal A & B measure



A= distance between the hinges of the gate and the actuator's post fixing pin. This distance can be chosen by the user. We recommend to use a measure similar to the "B" measure.

B= is the most relevant measure and determines gate opening speed and max. opening angle. It's determined by the pillar dimension+ fixing bracket. Shorter B measure determines faster opening of your gate. If you require major opening angle choose a short B measure and longer A measure

V= gate hinges
 K = post fixing bracket
 H = front fixing bracket

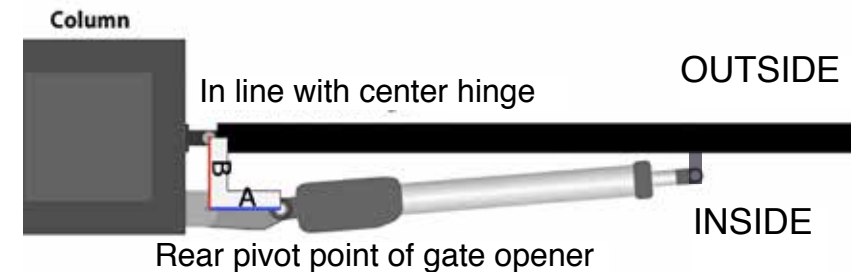
Longer telescopic actuators, allow better mechanical operation given by the greater strength of the lever.

Carefully evaluate the size of the pillars in relation to the tables that you will find in the pages that present the limits of use and overall dimensions of each actuator model. In some cases it may be required masonry work to install your opener

PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning: remember to reverse the polarity of the motor cables when connecting to the electronic board



A= this measure must allow the actuator to be parallel to the door open at 90°.

B= This measure allows the actuator mounting. Compare it to the actuator dimension

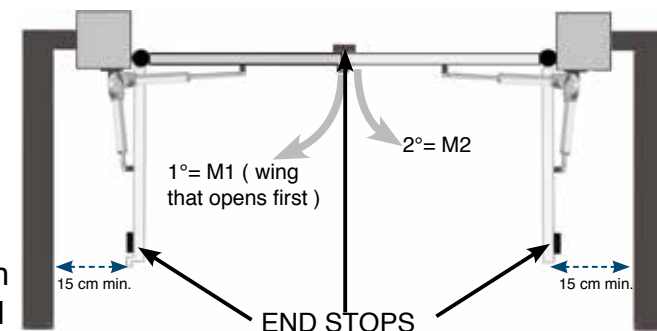
Longer telescopic actuators, allow better mechanical operation. Make sure that the gate does not open onto a public passageway. It is advisable to prepare a plan with safety photocells to be placed in such a way that the doors, opening towards the outside do not create damages to things and people who are on the outside of the property, such as parked vehicles.

Mechanical GATE STOPS (END STOPS):

The gate leaves must stop on the mechanical limits (end stops fixed to the ground) in the gate open & closed position. Make sure your gate has end stops fixed on the ground. FC version actuators are provided with on-board mechanical limits. This avoids to build end-stops limit fixed on the floor.

Warning: FC telescopic actuators version are equipped with on-board mechanical limit for open position only. EVE actuators and FC non telescopic actuators are equipped with on-board limits for both open & closed position

Warning: make sure that the actuator is always stops at the limit switch and not use all of its travel



Example of end-stop fixed to the ground



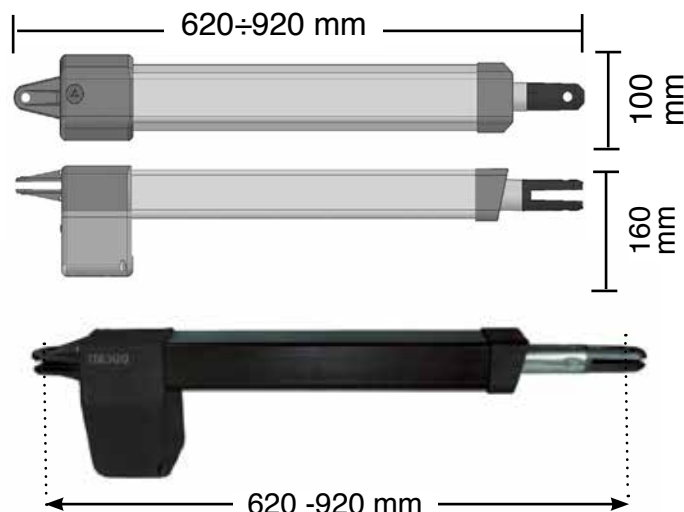
DUCATI actuator model HC312 Installation diagram

- HC312
 - HC312 FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 2,5m/ 8 ft

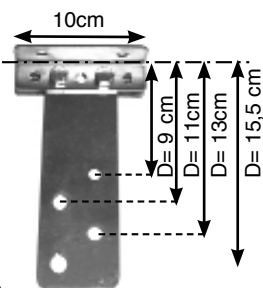
Maximal wing weight: up to 250kg/ 500lb



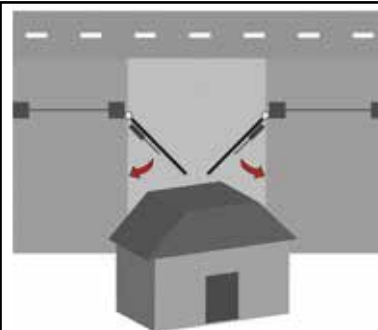
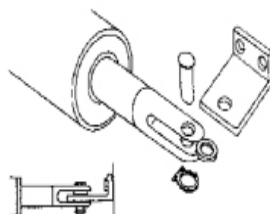
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing

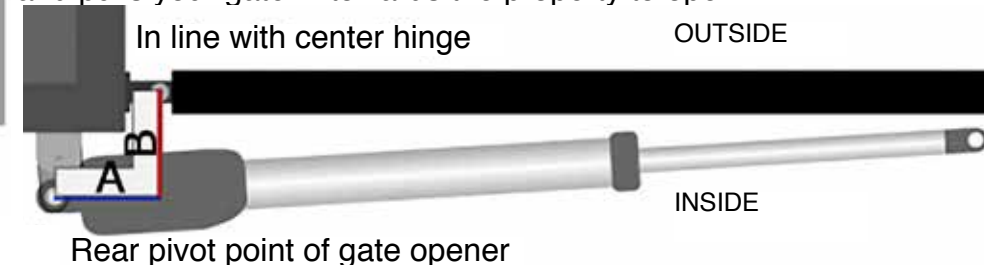


Front fixing



PULL TO OPEN OPERATION (opens towards inside)

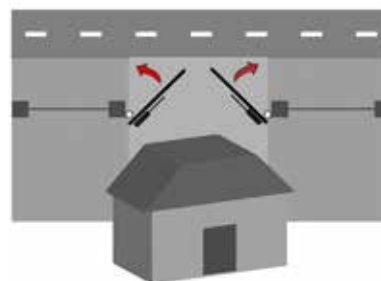
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



METRIC CONVERSION

1 cm	=	1/2"	=	0,3"
10 cm	=	4"		
12 cm	=	4 3/4"	=	4,7"
14 cm	=	5 1/2"	=	5,5"
16 cm	=	6 1/5"	=	6,2"
18 cm	=	7"		
20 cm	=	7 7/8"	=	7,87"
25 cm	=	9 3/4"	=	9,8"
30cm	=	11 8/9"	=	11,8"

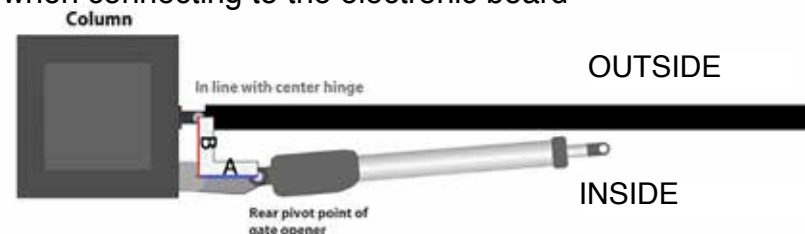
maximal dimension	A=8 cm	A=10 cm	A=12 cm	A=14 cm	A=18 cm	A=20 cm
B=8 cm	98°	110°	118°	125°	108°	100°
B= 10cm	97°	108°	115°	120°	100°	94°
B= 12cm	95°	105°	112°	110°	100°	93°
B= 14cm	95°	103°	109°	98°	/	/
B= 16cm	94°	101°	97°	90°	/	/
B= 18cm	94°	97°	/	/	/	/
B= 20cm	93°	/	/	/	/	/



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



A = min. 8cm max. 14cm

B = min. 8cm max. 14cm

DUCATI actuator model HC412 Installation diagram

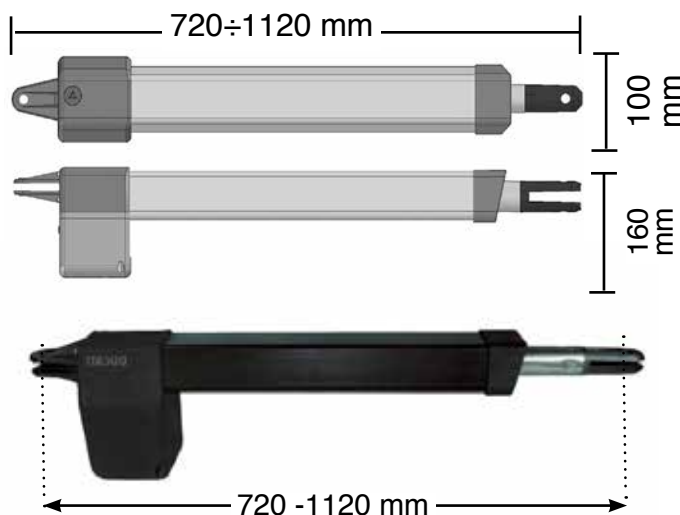


- HC412
 - HC412 FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 3,5m/ 11 ft

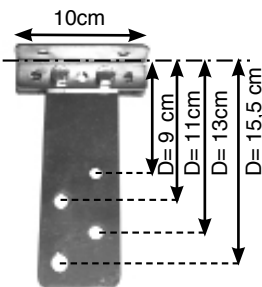
Maximal wing weight: up to 300kg/ 660lb



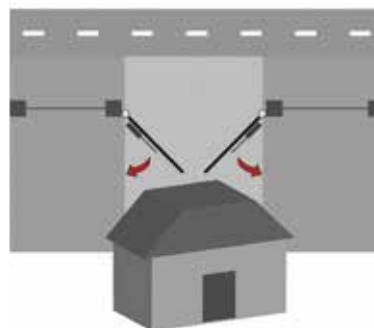
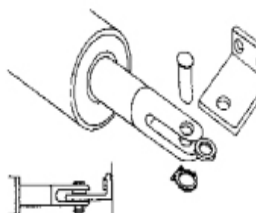
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing

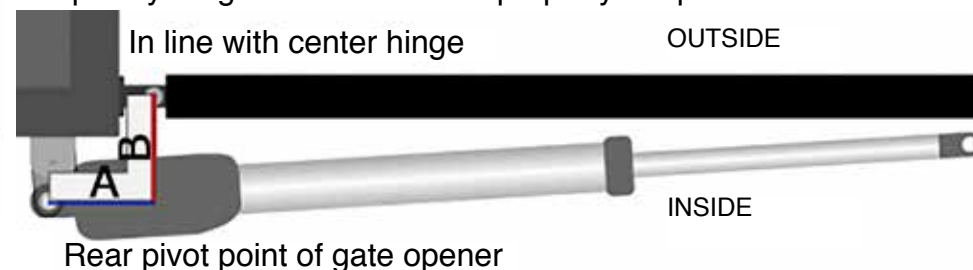


Front fixing



PULL TO OPEN OPERATION (opens towards inside)

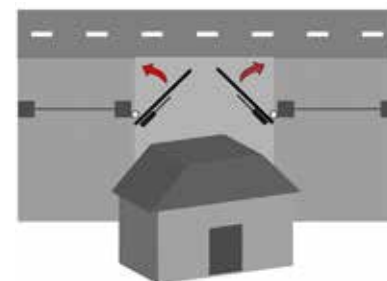
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



METRIC CONVERSION

1 cm =	1/2" =	0,3"
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20 cm =	7 7/8" =	7,87"
25 cm =	9 3/4" =	9,8"
28 cm =	11"	

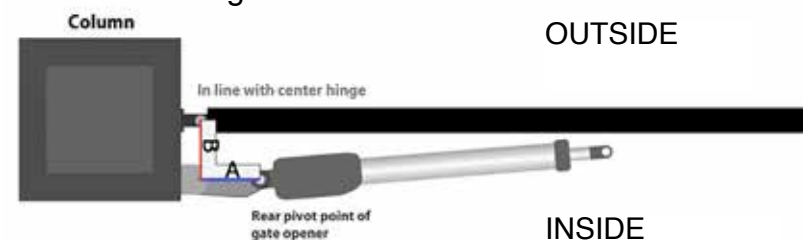
TAB	A= 8cm	A= 10cm	A= 12cm	A= 14cm	A= 16 cm	A= 18cm	A= 20cm	A= 22cm	A= 24cm	A= 26cm	A= 28cm
B= 8cm	16 sec/97°	18sec/110°	21sec/118°	23sec/125°	23sec/130°	24sec/135°	26sec/137°	27sec/115°	31sec/108°	32sec/103°	32sec/105°
B= 10cm	18sec/98°	19sec/107°	22sec/114°	23sec/121°	25sec/127°	27sec/131°	27sec/125°	29sec/115°	31sec/108°	32sec/103°	33sec/99°
B= 12cm	20sec/98°	23sec/105°	24sec/112°	26sec/118°	27sec/124°	29sec/127°	30sec/120°	33sec/110°	34sec/104°	35sec/100°	369sec/96°
B= 14cm	21sec/95°	24sec/103°	25sec/108°	27sec/105°	28sec/120°	30sec/125°	32sec/111°	33sec/105°	35sec/99°	36sec/95°	37sec/93°
B= 16cm	23sec/94°	25sec/102°	28sec/108°	30sec/103°	31sec/118°	33sec/113°	34sec/102°	35sec/98°	37sec/94°	38sec/90°	
B= 18cm	26sec/94°	27sec/100°	29sec/106°	32sec/111°	33sec/115°	34sec/105°	36sec/97°	36sec/93°	38sec/90°		
B= 20cm	28sec/94°	30sec/100°	32sec/105°	34sec/109°	35sec/103°	37sec/96°	40sec/90°				
B= 22cm	29sec/93°	33sec/99°	33sec/103°	34sec/106°	37sec/95°	38sec/90°					
B= 24cm	32sec/93°	34sec/99°	36sec/102°	37sec/93°							
B= 26cm	34sec/93°	36sec/98°	37sec/92°								
B= 28cm	38sec/93°										



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



A = min. 8cm max. 14cm
B = min. 8cm max. 14cm

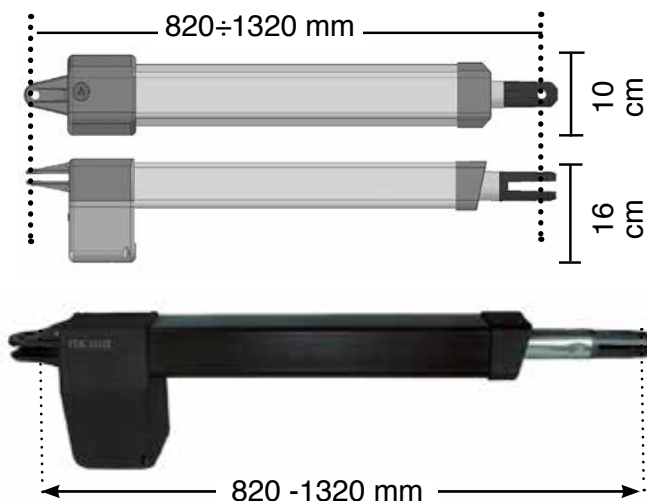
DUCATI actuator model HC512 Installation diagram

- HC512
 - HC512 FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 4m/ 14 ft

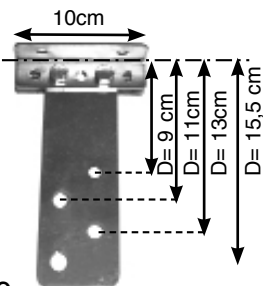
Maximal wing weight: up to 400kg/ 860lb



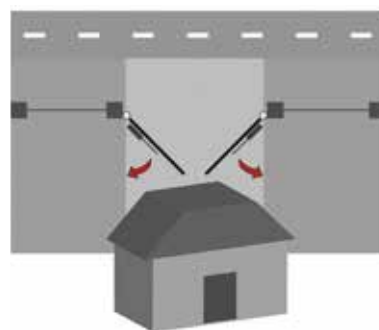
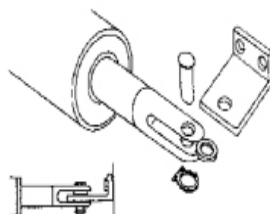
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing

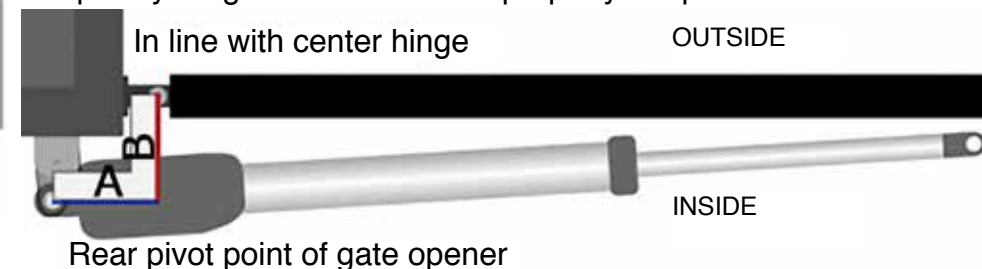


Front fixing



PULL TO OPEN OPERATION (opens towards inside)

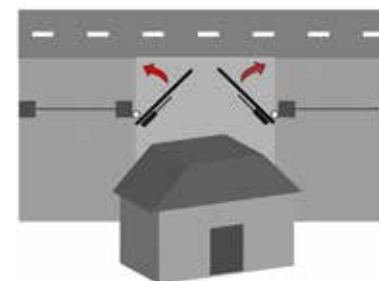
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



METRIC CONVERSION

1 cm	=	1/2"	=	0,3"
10 cm	=	4"		
12 cm	=	4 3/4"	=	4,7"
14 cm	=	5 1/2"	=	5,5"
16 cm	=	6 1/5"	=	6,2"
18 cm	=	7"		
20 cm	=	7 7/8"	=	7,87"
25 cm	=	9 3/4"	=	9,8"
30cm	=	11 8/9"	=	11,8"

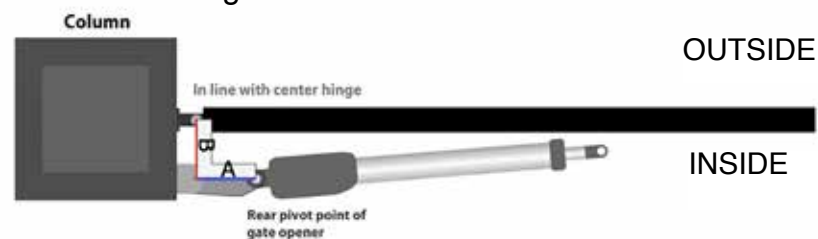
TAB	A= 8cm	A= 10cm	A= 12cm	A= 14cm	A= 16 cm	A= 18cm	A= 20cm	A= 22cm	A= 24cm	A= 26cm	A= 28cm
B= 8cm	16 sec/97°	18sec/110°	21sec/118°	23sec/125°	23sec/130°	24sec/135°	26sec/137°	27sec/115°	31sec/108°	32sec/103°	32sec/105°
B= 10cm	18sec/98°	19sec/107°	22sec/114°	23sec/121°	25sec/127°	27sec/131°	27sec/125°	29sec/115°	31sec/108°	32sec/103°	33sec/99°
B= 12cm	20sec/98°	23sec/105°	24sec/112°	26sec/118°	27sec/124°	29sec/127°	30sec/120°	33sec/110°	34sec/104°	35sec/100°	369sec/96°
B= 14cm	21sec/95°	24sec/103°	25sec/108°	27sec/105°	28sec/120°	30sec/125°	32sec/111°	33sec/105°	35sec/99°	36sec/95°	37sec/93°
B= 16cm	23sec/94°	25sec/102°	28sec/108°	30sec/103°	31sec/118°	33sec/113°	34sec/102°	35sec/98°	37sec/94°	38sec/90°	
B= 18cm	26sec/94°	27sec/100°	29sec/106°	32sec/111°	33sec/115°	34sec/105°	36sec/97°	36sec/93°	38sec/90°		
B= 20cm	28sec/94°	30sec/100°	32sec/105°	34sec/109°	35sec/103°	37sec/96°	40sec/90°				
B= 22cm	29sec/93°	33sec/99°	33sec/103°	34sec/106°	37sec/95°	38sec/90°					
B= 24cm	32sec/93°	34sec/99°	36sec/102°	37sec/93°							
B= 26cm	34sec/93°	36sec/98°	37sec/92°								
B= 30cm	38sec/93°										



PUSH TO OPEN OPERATION (opens towards inside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



A = min. 8cm max. 14cm

B = min. 8cm max. 14cm

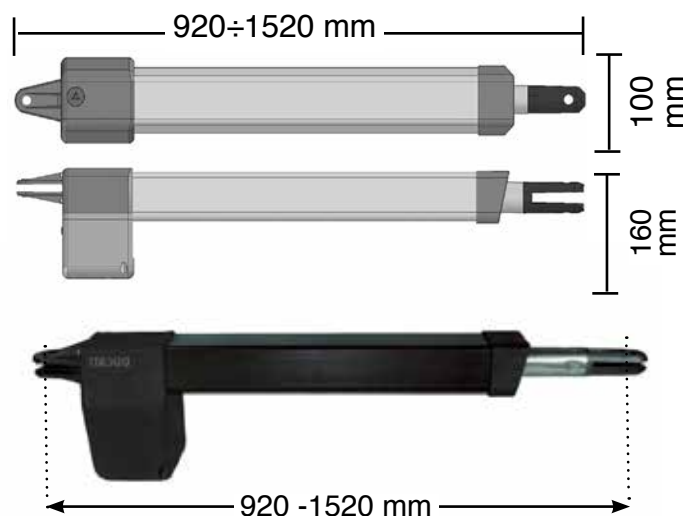
DUCATI actuator model HC612 Installation diagram

- HC612
 - HC612 FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 5m/ 16 ft

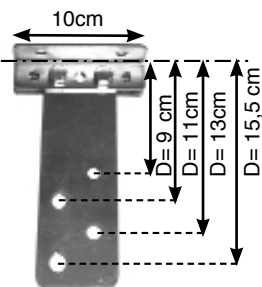
Maximal wing weight: up to 500kg/ 110lb



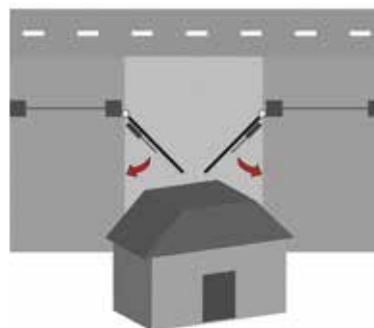
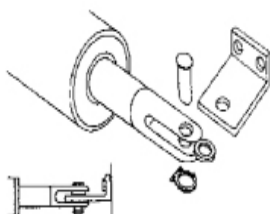
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing

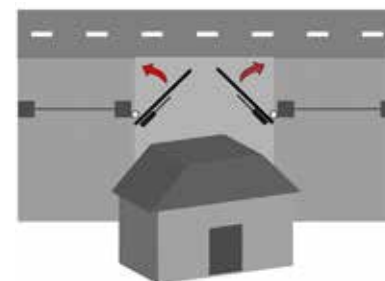


Front fixing



METRIC CONVERSION

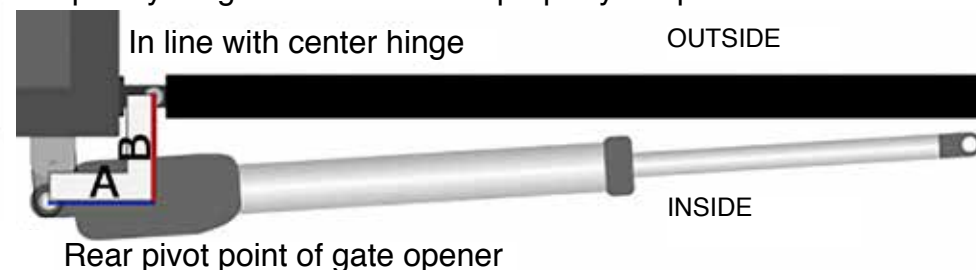
1 cm =	1/2" =	0,3"
10 cm =	4"	
12 cm =	4 3/4" =	4,7"
14 cm =	5 1/2" =	5,5"
16 cm =	6 1/5" =	6,2"
18 cm =	7"	
20 cm =	7 7/8" =	7,87"
25 cm =	9 3/4" =	9,8"
35cm =	13 4/5" =	13,7"



A = min. 8cm max. 14cm
B = min. 8cm max. 14cm

PULL TO OPEN OPERATION (opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.

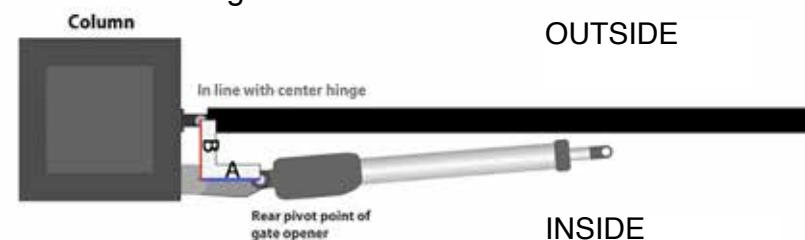


TAB	A= 8cm	A= 10cm	A= 12cm	A= 14cm	A= 16 cm	A= 18cm	A= 20cm	A= 22cm	A= 24cm	A= 26cm	A= 28cm
B= 8cm	16 sec/97°	18sec/110°	21sec/118°	23sec/125°	23sec/130°	24sec/135°	26sec/137°	27sec/115°	31sec/108°	32sec/103°	32sec/105°
B= 10cm	18sec/98°	19sec/107°	22sec/114°	23sec/121°	25sec/127°	27sec/131°	27sec/125°	29sec/115°	31sec/108°	32sec/103°	33sec/99°
B= 12cm	20sec/98°	23sec/105°	24sec/112°	26sec/118°	27sec/124°	29sec/127°	30sec/120°	33sec/110°	34sec/104°	35sec/100°	369sec/96°
B= 14cm	21sec/95°	24sec/103°	25sec/108°	27sec/105°	28sec/120°	30sec/125°	32sec/111°	33sec/105°	35sec/99°	36sec/95°	37sec/93°
B= 16cm	23sec/94°	25sec/102°	28sec/108°	30sec/103°	31sec/118°	33sec/113°	34sec/102°	35sec/98°	37sec/94°	38sec/90°	
B= 18cm	26sec/94°	27sec/100°	29sec/106°	32sec/111°	33sec/115°	34sec/105°	36sec/97°	36sec/93°	38sec/90°		
B= 20cm	28sec/94°	30sec/100°	32sec/105°	34sec/109°	35sec/103°	37sec/96°	40sec/90°				
B= 22cm	29sec/93°	33sec/99°	33sec/103°	34sec/106°	37sec/95°	38sec/90°					
B= 24cm	32sec/93°	34sec/99°	36sec/102°	37sec/93°							
B= 26cm	34sec/93°	36sec/98°	37sec/92°								
B= 35cm	38sec/93°										

PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



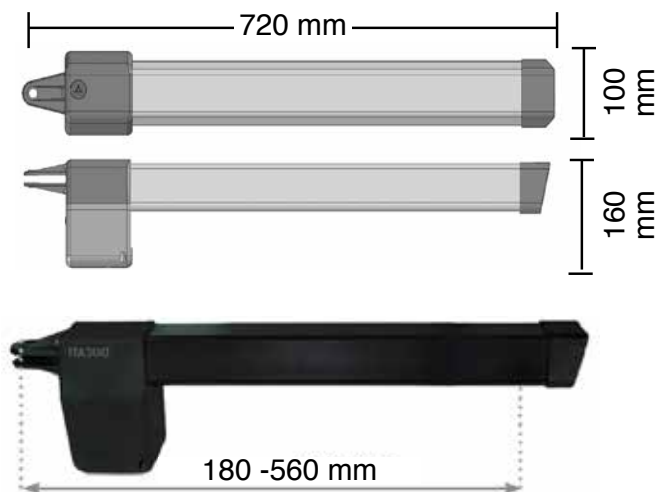
DUCATI actuator model HC418 Installation diagram

- HC418
 - HC418 FC (with on board open& closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

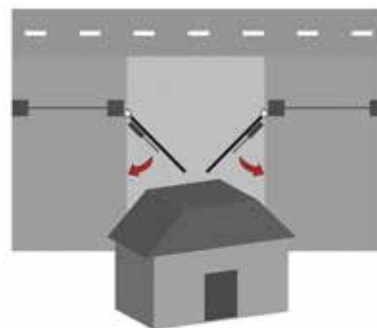
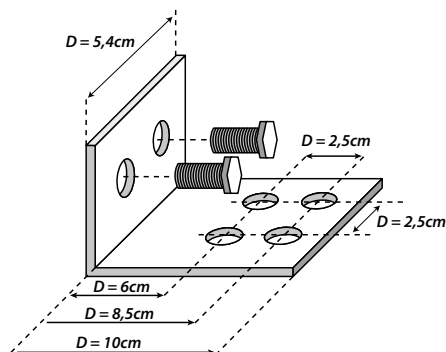
Maximal wing lenght: **up to 2m/ 6,5 ft**

Maximal wing weight: up to 200kg/ 440lb



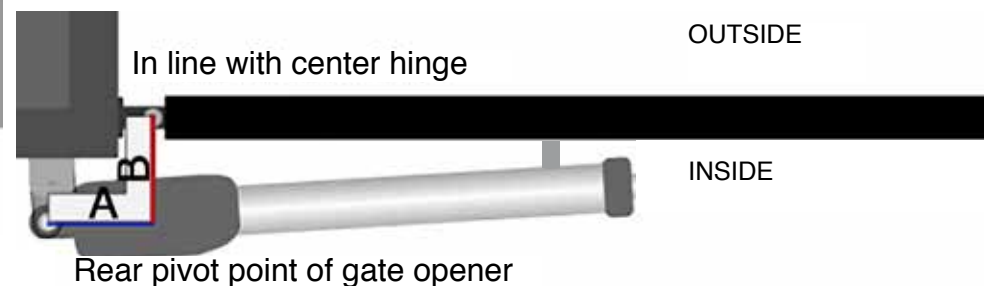
Supplied fixing bracket:

choose the hole most suitable to your gate.
You can cut the plate if necessary



PULL TO OPEN OPERATION (opens towards inside)

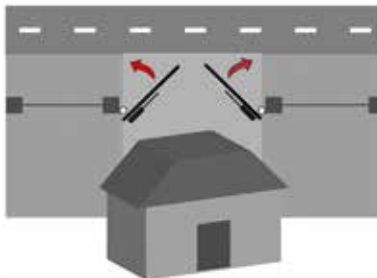
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



maximal dimension	A=10 cm	A=12cm	A=14 cm	A=18 cm
B= 10cm	108°	115°	120°	100°
B= 12cm	105°	112°	100°	100°
B= 14cm	103°	109°	98°	/
B= 16cm	101°	97°	90°	/
B= 18cm	97°	/	/	/

METRIC CONVERSION

1 cm = 1/2" = 0,3"
 10 cm = 4"
 12 cm = 4 3/4" = 4,7"
 14 cm = 5 1/2" = 5,5"
 16 cm = 6 1/5" = 6,2"
 18 cm = 7"



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property.
Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

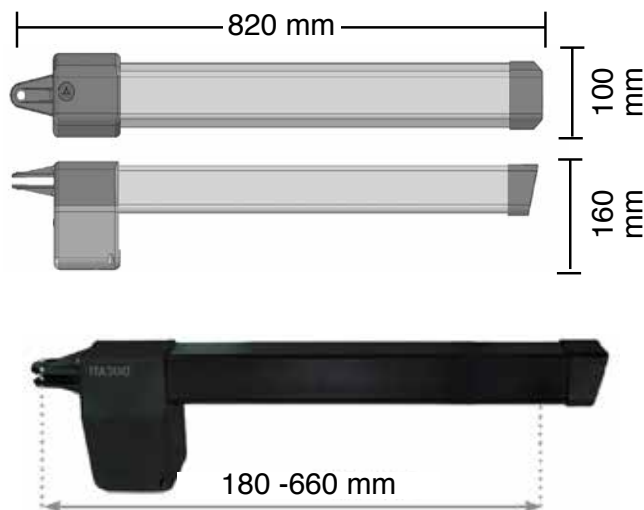
DUCATI actuator model HC518 Installation diagram

- HC518
 - HC518 FC (with on board open& closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

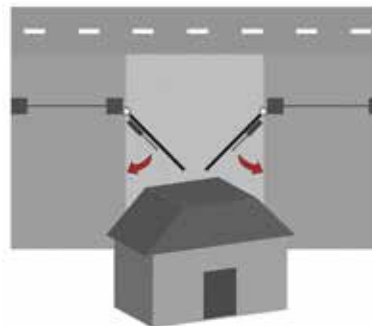
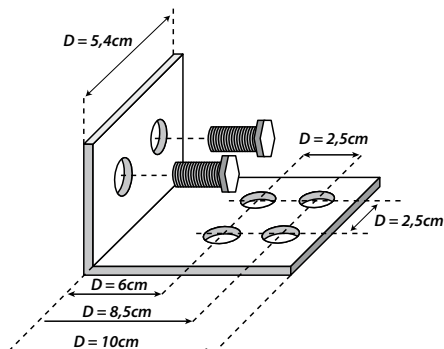
Maximal wing lenght: up to 3m/ 8,5 ft

Maximal wing weight: up to 300kg/ 760lb



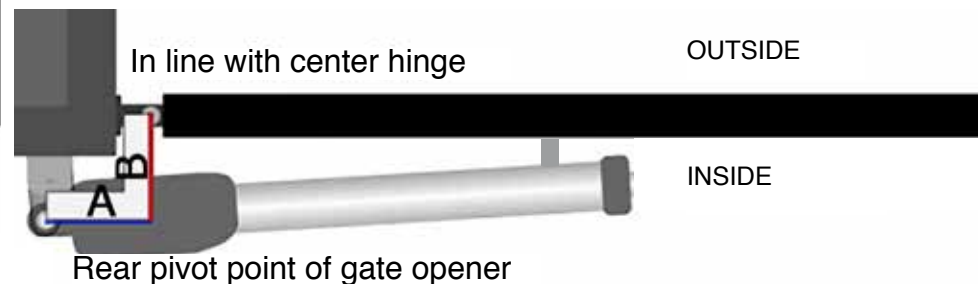
Supplied fixing bracket:

choose the hole most suitable to your gate.
You can cut the plate if necessary



PULL TO OPEN OPERATION (opens towards inside)

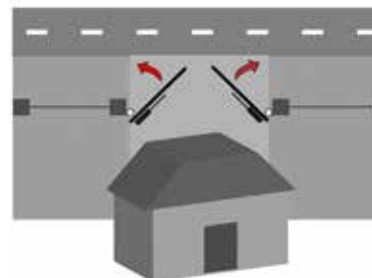
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



maximal dimension	A=10 cm	A=12cm	A=14 cm	A=18 cm
B= 10cm	108°	115°	120°	100°
B= 12cm	105°	112°	100°	100°
B= 14cm	103°	109°	98°	/
B= 16cm	101°	97°	90°	/
B= 18cm	97°	/	/	/
B = 22 cm	90 °	/	/	/

METRIC CONVERSION

1 cm = 1/2" = 0,3"
 10 cm = 4"
 12 cm = 4 3/4" = 4,7"
 14 cm = 5 1/2" = 5,5"
 16 cm = 6 1/5" = 6,2"
 18 cm = 7"



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

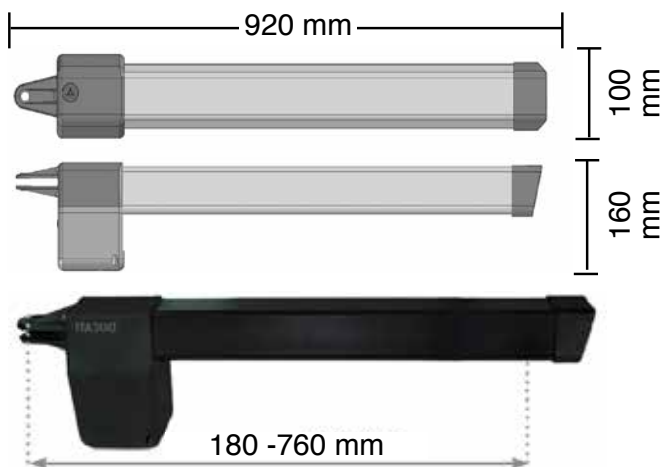
DUCATI actuator model HC618 Installation diagram

- HC618
 - HC618 FC (with on board open& closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

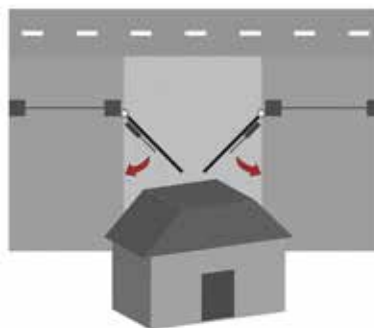
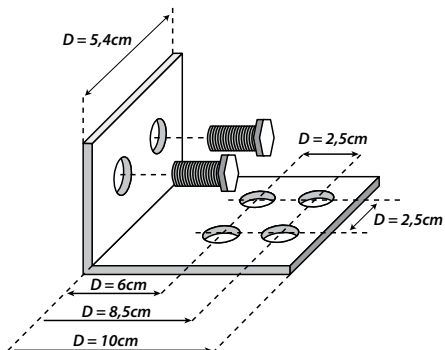
Maximal wing lenght: up to 4m/ 10 ft

Maximal wing weight: up to 300kg/ 760lb



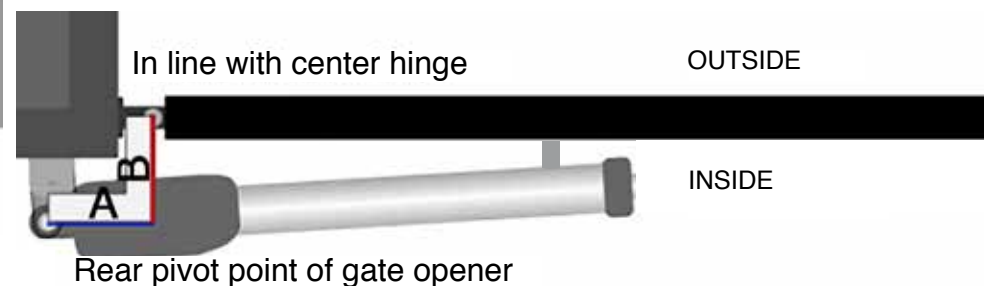
Supplied fixing bracket:

choose the hole most suitable to your gate.
You can cut the plate if necessary



PULL TO OPEN OPERATION (opens towards inside)

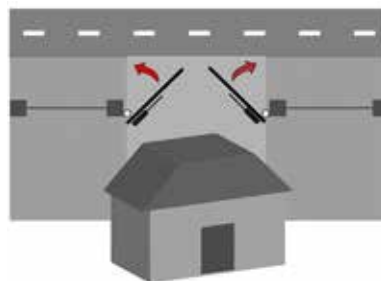
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



maximal dimension	A=8 cm	A=12cm	A=14 cm	A=18 cm
B= 10cm	108°	115°	120°	100°
B= 12cm	105°	112°	100°	100°
B= 14cm	103°	109°	98°	/
B= 16cm	101°	97°	90°	/
B= 18cm	97°	/	/	/
B = 25 cm	90 °	/	/	/

METRIC CONVERSION

1 cm = 1/2" = 0,3"
 10 cm = 4"
 12 cm = 43/4" = 4,7"
 14 cm = 5 1/2" = 5,5"
 16 cm = 6 1/5" = 6,2"
 18 cm = 7"



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property.
Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

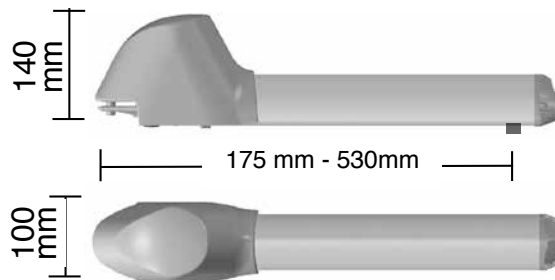
DUCATI actuator model SW400 Installation diagram

- SW400
 - SW400 FC (with on board open & closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

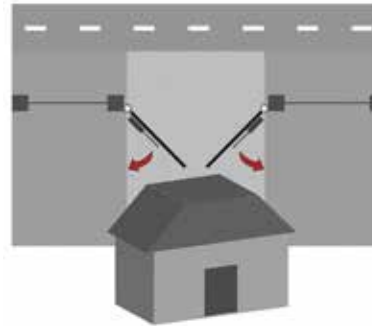
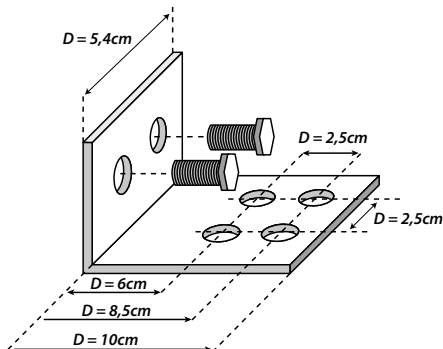
Maximal wing lenght: **up to 2m/ 6,5 ft**

Maximal wing weight: up to 200kg/ 440lb



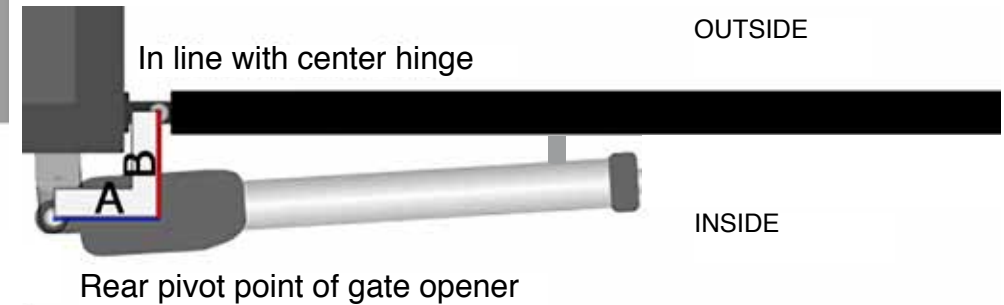
Supplied fixing bracket:

choose the hole most suitable to your gate.
You can cut the plate if necessary



PULL TO OPEN OPERATION (opens towards inside)

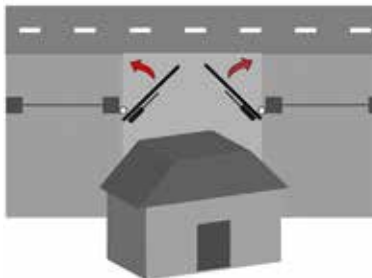
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



METRIC CONVERSION

1 cm = 1/2" = 0,3"
10 cm = 4"
12 cm = 4 3/4" = 4,7"
14 cm = 5 1/2" = 5,5"
16 cm = 6 1/5" = 6,2"
18 cm = 7"

TAB	A=10 cm	A=12cm	A=14 cm	A=18 cm
B= 10cm	108°	115°	120°	100°
B= 12cm	105°	112°	100°	100°
B= 14cm	103°	109°	98°	/
B= 16cm	101°	97°	90°	/
B= 18cm	97°	/	/	/



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

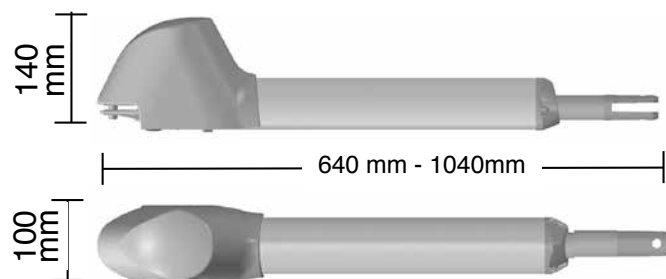
DUCATI actuator model SW400T Installation diagram

- SW400 T
 - SW400T FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 2,6m/ 8,5 ft

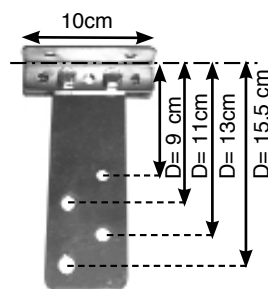
Maximal wing weight: up to 250kg/ 500lb



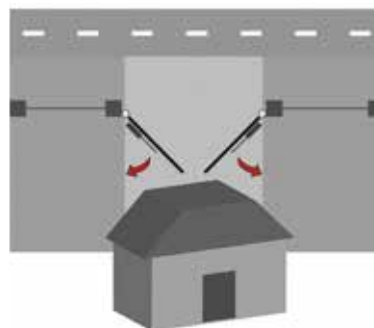
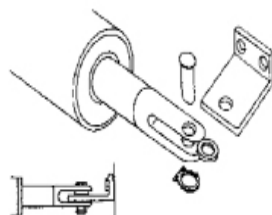
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing

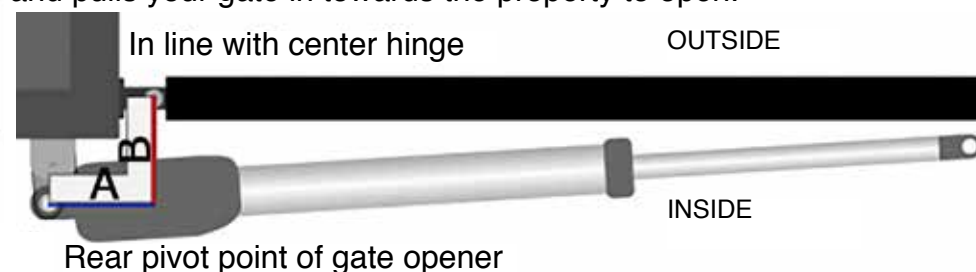


Front fixing



PULL TO OPEN OPERATION (opens towards inside)

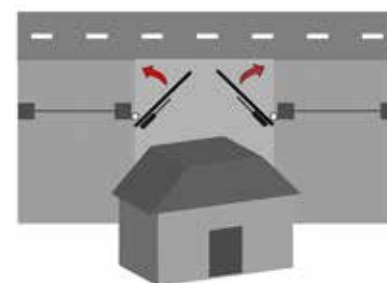
This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



METRIC CONVERSION

1 cm	=	1/2"	=	0,3"
10 cm	=	4"		
12 cm	=	4 3/4"	=	4,7"
14 cm	=	5 1/2"	=	5,5"
16 cm	=	6 1/5"	=	6,2"
18 cm	=	7"		
20 cm	=	7 7/8"	=	7,87"
25 cm	=	9 3/4"	=	9,8"
28 cm	=	11"		

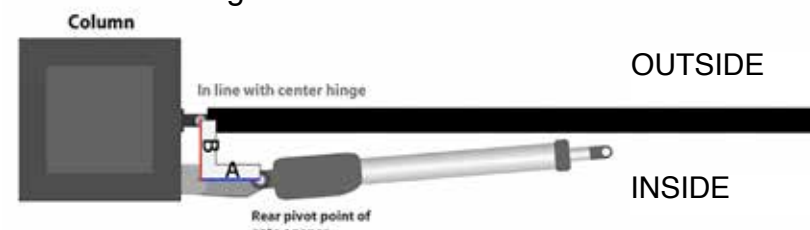
TAB 3	A= 8cm	A= 10cm	A= 12cm	A= 14cm	A= 16 cm	A= 18cm	A= 20cm	A= 22cm	A= 24cm	A= 26cm	A= 28cm
B= 8cm	16 sec/97°	18sec/110°	21sec/118°	23sec/125°	23sec/130°	24sec/135°	26sec/137°	27sec/115°	31sec/108°	32sec/103°	32sec/105°
B= 10cm	18sec/98°	19sec/107°	22sec/114°	23sec/121°	25sec/127°	27sec/131°	27sec/125°	29sec/115°	31sec/108°	32sec/103°	33sec/99°
B= 12cm	20sec/98°	23sec/105°	24sec/112°	26sec/118°	27sec/124°	29sec/127°	30sec/120°	33sec/110°	34sec/104°	35sec/100°	369sec/96°
B= 14cm	21sec/95°	24sec/103°	25sec/108°	27sec/105°	28sec/120°	30sec/125°	32sec/111°	33sec/105°	35sec/99°	36sec/95°	37sec/93°
B= 16cm	23sec/94°	25sec/102°	28sec/108°	30sec/103°	31sec/118°	33sec/113°	34sec/102°	35sec/98°	37sec/94°	38sec/90°	
B= 18cm	26sec/94°	27sec/100°	29sec/106°	32sec/111°	33sec/115°	34sec/105°	36sec/97°	36sec/93°	38sec/90°		
B= 20cm	28sec/94°	30sec/100°	32sec/105°	34sec/109°	35sec/103°	37sec/96°	40sec/90°				
B= 22cm	29sec/93°	33sec/99°	33sec/103°	34sec/106°	37sec/95°	38sec/90°					
B= 24cm	32sec/93°	34sec/99°	36sec/102°	37sec/93°							
B= 26cm	34sec/93°	36sec/98°	37sec/92°								
B= 28cm	38sec/93°										



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



A = min. 8cm max. 14cm
B = min. 8cm max. 14cm

DUCATI actuator model EVO 700 Installation diagram

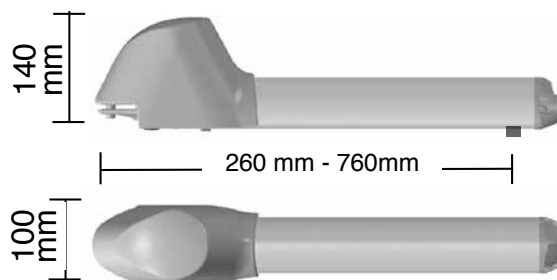


- EVO 700
 - EVO 700 FC (with on board open & closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

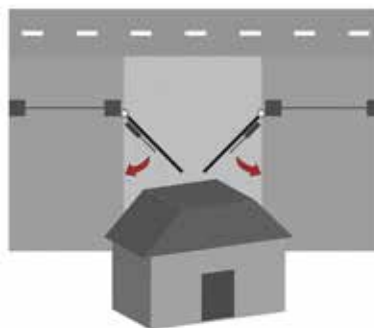
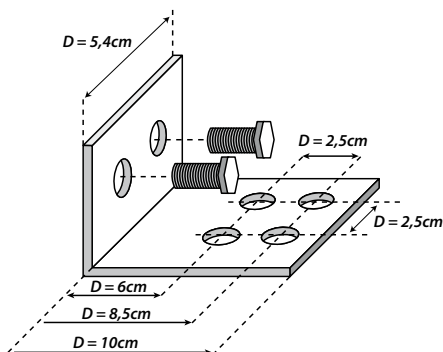
Maximal wing lenght: up to 4m/ 14 ft

Maximal wing weight: up to 350kg/ 760lb



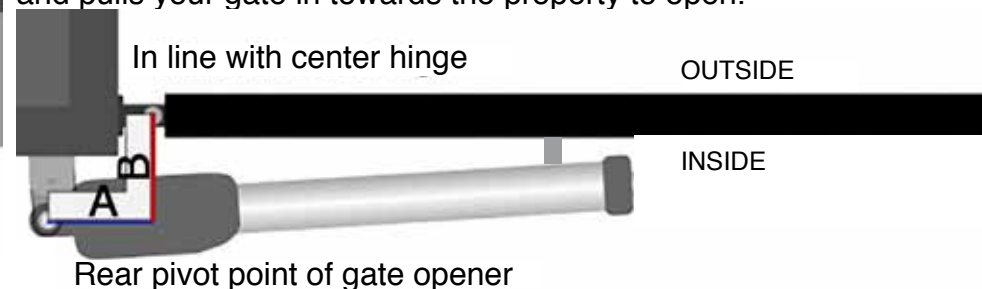
Supplied fixing bracket:

choose the hole most suitable to your gate.
You can cut the plate if necessary



PULL TO OPEN OPERATION (opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.

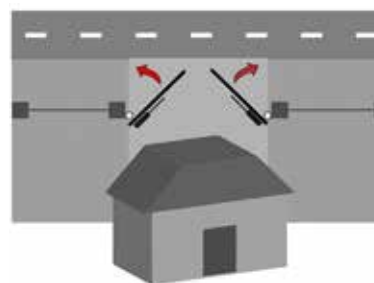


METRIC CONVERSION

1 cm = 1/2" = 0,3"
10 cm = 4"
12 cm = 4 3/4" = 4,7"
14 cm = 5 1/2" = 5,5"
16 cm = 6 1/5" = 6,2"
18 cm = 7"
20 cm = 7 7/8" = 7,87"
25 cm = 9 3/4" = 9,8"
35 cm = 13 4/5" = 13,7"

measures are in cm

TAB	A-9	A-11	A-13	A-15	A-17	A-19	A-21	A-23	A-25
B-8	105°12sec	115°15sec	125°15sec	130°20sec	130°27sec	140°25sec	135°27sec	90°	105°
B-9	105°13sec	115°15sec	120°18sec	125°20sec	130°23sec	135°25sec	120°	90°	105°
B-12	100°14sec	110°17sec	115°19sec	120°21sec	120°23sec	125°26sec	120°	90°	105°
B-15	105°17sec	105°19sec	110°21sec	115°23sec	120°26sec	125°28sec	125°30sec		
B-18	100°18sec	105°20sec	110°23sec	115°25sec	115°27sec	120°29sec	100°28sec		
B-21	105°20sec	100°22sec	105°24sec	110°26sec	110°28sec				
B-25	95°23sec	100°25sec	105°27sec	110°29sec	110°31sec				
B-29	95°27sec	100°28sec	100°30sec	105°32sec					
B-33	95°30sec	95°32sec	90°32sec						
B-35	95°32sec	95°33sec							



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning: remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

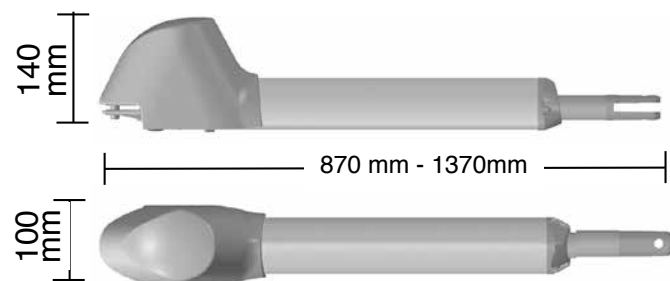
DUCATI actuator model EVO 700T Installation diagram

- EVO 700 T
 - EVO 700 T FC (with on board open position mechanical limit)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 5m/ 16 ft

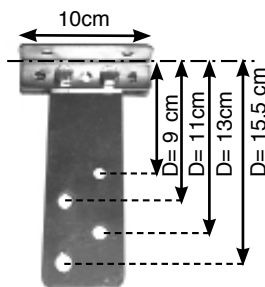
Maximal wing weight: up to 350kg/ 760lb



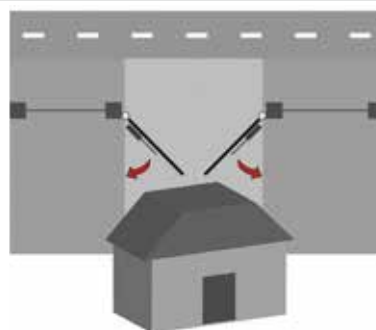
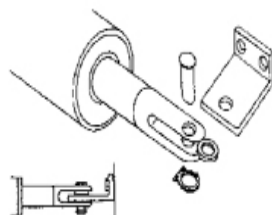
Supplied fixing bracket:

choose the hole most suitable to your gate. you can cut the plate if necessary

Post fixing



Front fixing

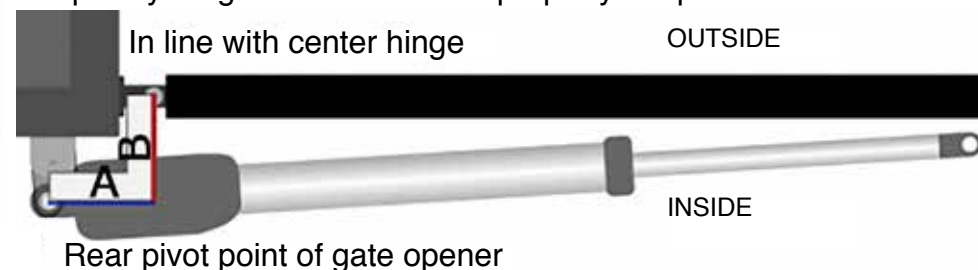


METRIC CONVERSION

1 cm = 1/2" = 0,3"
10 cm = 4"
12 cm = 4 3/4" = 4,7"
14 cm = 5 1/2" = 5,5"
16 cm = 6 1/5" = 6,2"
18 cm = 7"
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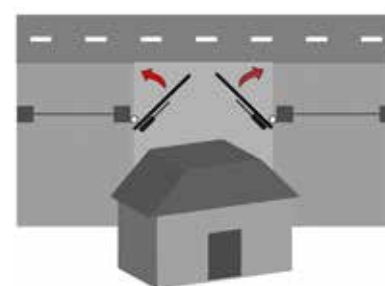
PULL TO OPEN OPERATION (opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



measures are in cm

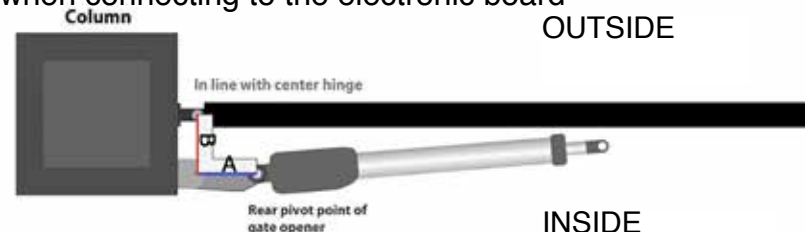
TAB	A-9	A-11	A-13	A-15	A-17	A-19	A-21	A-23	A-25
B-9	105°21sec	115°22sec	120°23sec	120°23sec	125°23sec	130°25sec	135°26sec	135°26sec	120°23sec
B-11	105°21sec	115°22sec	115°22sec	115°22sec	120°23sec	125°23sec	130°25sec	90°18sec	115°22sec
B-13	100°20sec	105°21sec	110°21sec	115°22sec	115°22sec	120°23sec	125°23sec	125°23sec	105°21sec
B-15	105°17sec	105°19sec	110°21sec	115°23sec	120°26sec	125°28sec	125°30sec	125°23sec	105°21sec
B-18	100°18sec	105°20sec	110°23sec	115°25sec	115°27sec	120°29sec	100°28sec	105°21sec	100°20sec
B-21	105°20sec	100°22sec	105°24sec	110°26sec	110°28sec				
B-25	95°23sec	100°25sec	105°27sec	110°29sec	110°31sec				
B-29	95°27sec	100°28sec	100°30sec	105°32sec					
B-33	95°30sec	95°32sec	90°32sec						
B-35	95°32sec	95°33sec							



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



A = min. 8cm max. 14cm

B = min. 8cm max. 14cm

DUCATI actuator model EVE 900 Installation diagram



- EVE900 FC
 - EVE900 FCA (with on board open & closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 4m/ 14 ft

Maximal wing weight: up to 450kg/ 1000lb

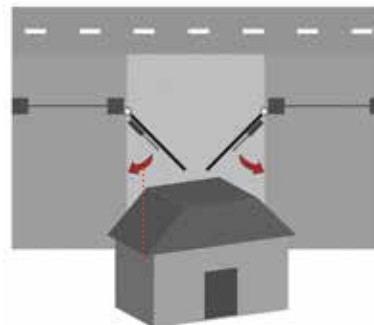
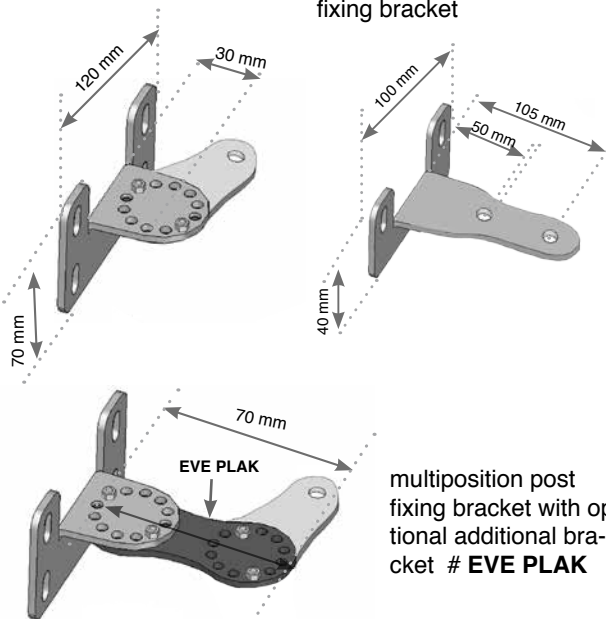


Multi-position fixing bracket:

choose the hole most suitable to your gate.

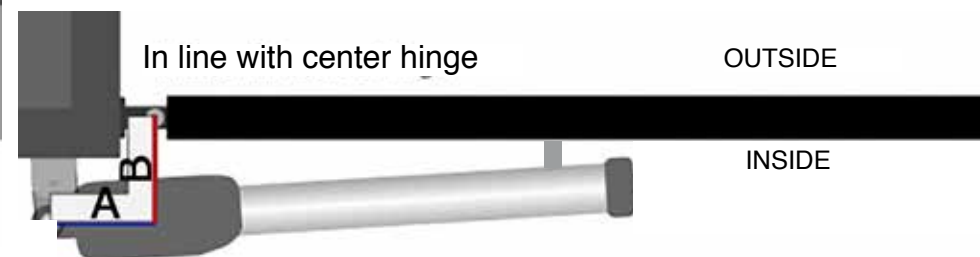
front fixing bracket

multiposition post fixing bracket



PULL TO OPEN OPERATION (opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



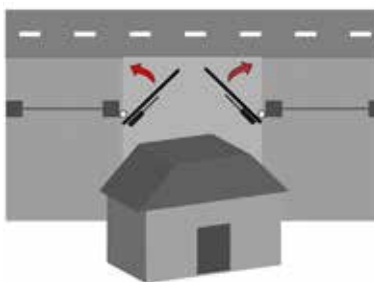
■ Rear pivot point of gate opener

measures are in cm

METRIC CONVERSION

1 cm = 1/2" = 0,3"
 10 cm = 4"
 12 cm = 4 3/4" = 4,7"
 14 cm = 5 1/2" = 5,5"
 16 cm = 6 1/5" = 6,2"
 18 cm = 7"
 20 cm = 7 7/8" = 7,87"
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TAB	A-9	A-11	A-13	A-15	A-17	A-19	A-210	A-23	A-25
B-8	105°12sec	115°15sec	125°15sec	130°20sec	130°27sec	140°25sec	135°27sec	90°	105°
B-9	105°13sec	115°15sec	120°18sec	125°20sec	130°23sec	135°25sec	120°	90°	105°
B-12	100°14sec	110°17sec	115°19sec	120°21sec	120°23sec	125°26sec	120°	90°	105°
B-15	105°17sec	105°19sec	110°21sec	115°23sec	120°26sec	125°28sec	125°30sec		
B-18	100°18sec	105°20sec	110°23sec	115°25sec	115°27sec	120°29sec	100°28sec		
B-21	105°20sec	100°22sec	105°24sec	110°26sec	110°28sec				
B-25	95°23sec	100°25sec	105°27sec	110°29sec	110°31sec				
B-29	95°27sec	100°28sec	100°30sec	105°32sec					
B-33	95°30sec	95°32sec	90°32sec						
B-35	95°32sec	95°33sec							



PUSH TO OPEN OPERATION (opens towards outside)

If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

Warning: remember to reverse the polarity of the motor cables when connecting to the electronic board

NOT POSSIBLE WITH THIS ACTUATOR MODEL: IT REQUIRES TELESCOPIC ACTUATORS

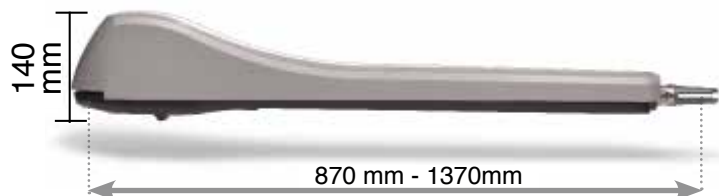
DUCATI actuator model EVE 900T Installation diagram

- EVE900 T FC
 - EVE900 T FCA (with on board open & closed position mechanical limits)
- each model is also available in 24V version

Maximal wing dimension:

Maximal wing lenght: up to 5m/ 16 ft

Maximal wing weight: up to 500kg/ 1100lb

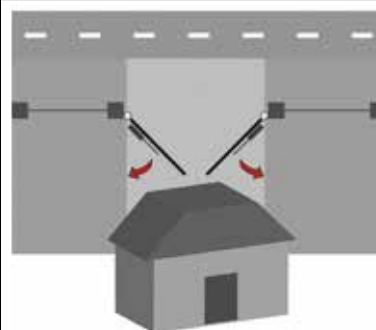
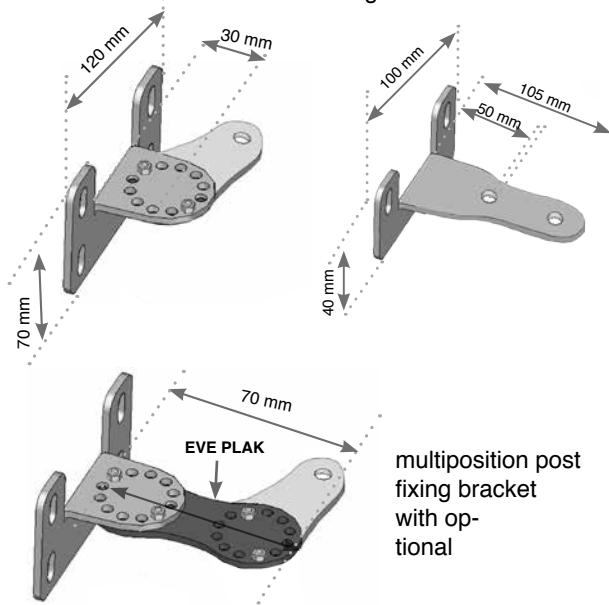


Multi-position fixing bracket:

choose the hole most suitable to your gate.

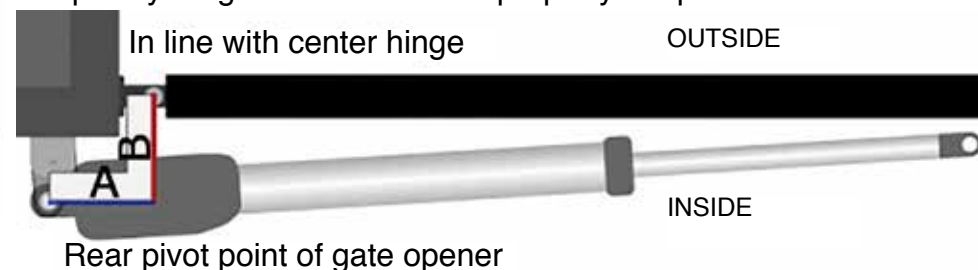
front fixing bracket

multiposition post fixing bracket



PULL TO OPEN OPERATION (opens towards inside)

This means the gate operator is mounted on the inside of the property and pulls your gate in towards the property to open.



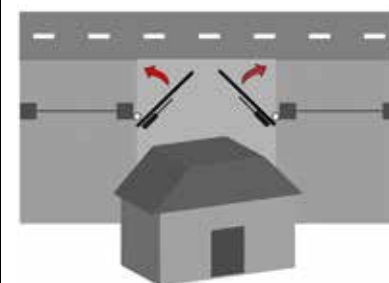
Rear pivot point of gate opener

measures are in cm

METRIC CONVERSION

1 cm = 1/2" = 0,3"
 10 cm = 4"
 12 cm = 43/4" = 4,7"
 14 cm = 5 1/2" = 5,5"
 16 cm = 6 1/5" = 6,2"
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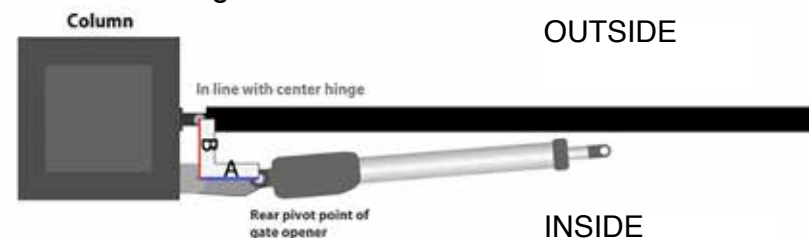
TAB	A-9	A-11	A-13	A-15	A-17	A-19	A-21	A-23	A-25
B-9	105°21sec	115°22sec	120°23sec	120°23sec	125°23sec	130°25sec	135°26sec	135°26sec	120°23sec
B-11	105°21sec	115°22sec	115°22sec	115°22sec	120°23sec	125°23sec	130°25sec	90°18sec	115°22sec
B-13	100°20sec	105°21sec	110°21sec	115°22sec	115°22sec	120°23sec	125°23sec	125°23sec	105°21sec
B-15	105°17sec	105°19sec	110°21sec	115°23sec	120°26sec	125°28sec	125°30sec	125°23sec	105°21sec
B-18	100°18sec	105°20sec	110°23sec	115°25sec	115°27sec	120°29sec	100°28sec	105°21sec	100°20sec
B-21	105°20sec	100°22sec	105°24sec	110°26sec	110°28sec				
B-25	95°23sec	100°25sec	105°27sec	110°29sec	110°31sec				
B-29	95°27sec	100°28sec	100°30sec	105°32sec					
B-33	95°30sec	95°32sec	90°32sec						
B-35	95°32sec	95°33sec							



PUSH TO OPEN OPERATION (opens towards outside)

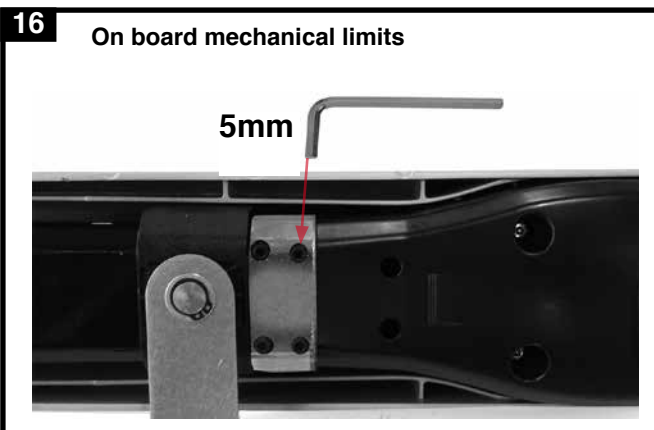
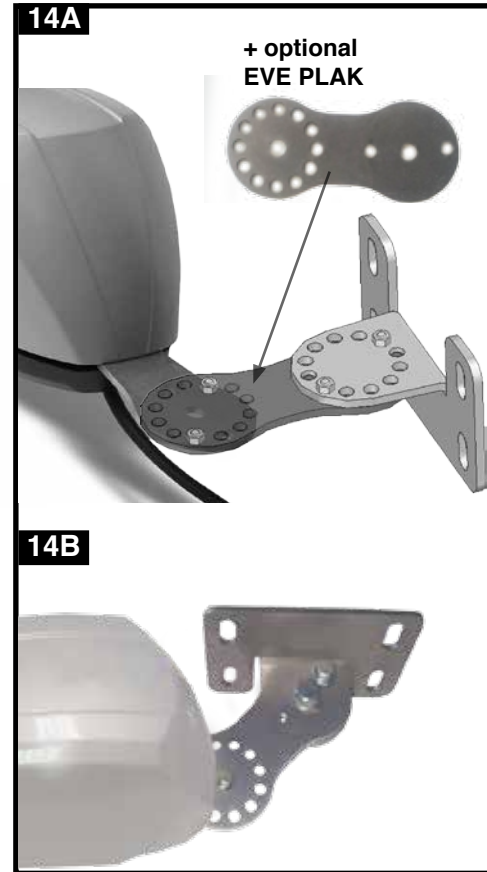
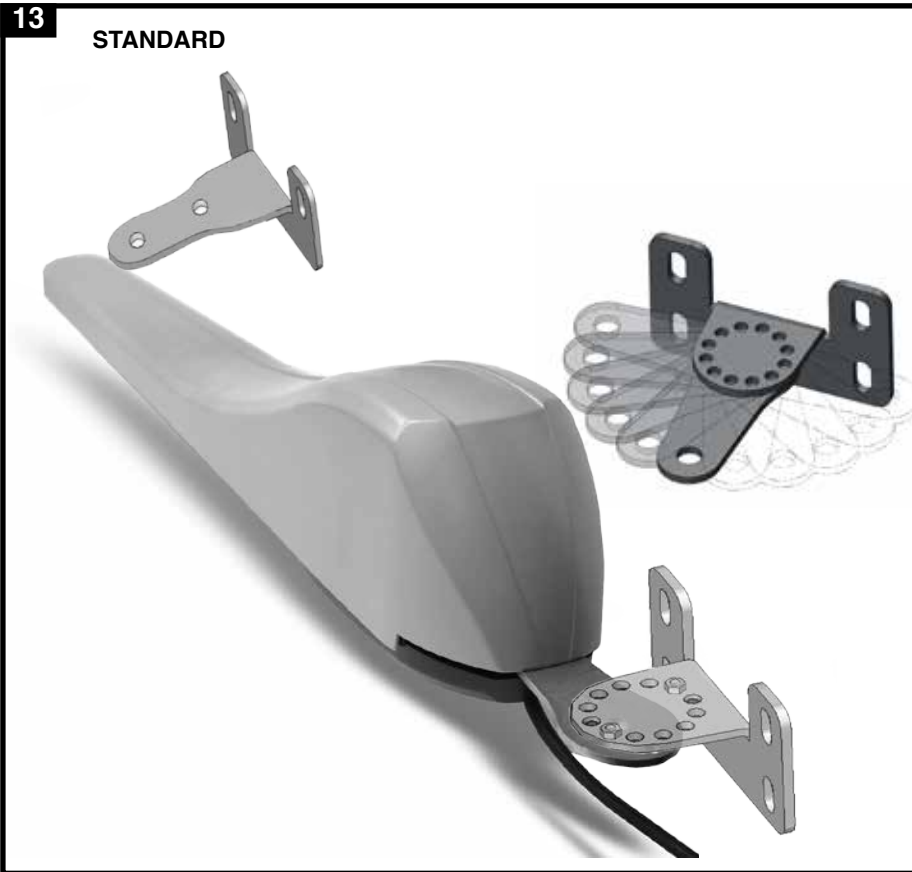
If your driveway slopes up after the gate, preventing it from swinging in. This means the gate operator is mounted on the inside of the property and pushes your gate out away from the property. Warning: only compatible with telescopic tube actuators, Check the overall dimensions before installation.

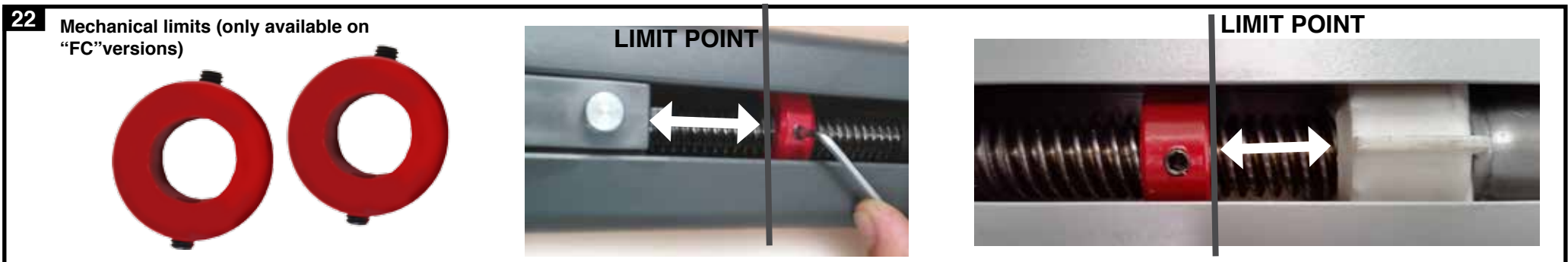
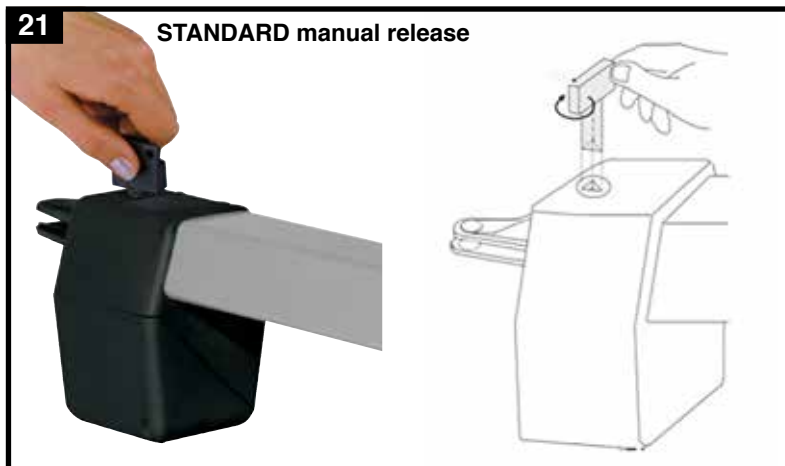
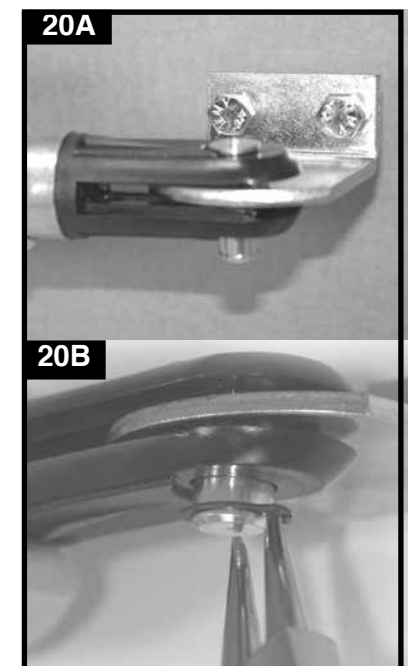
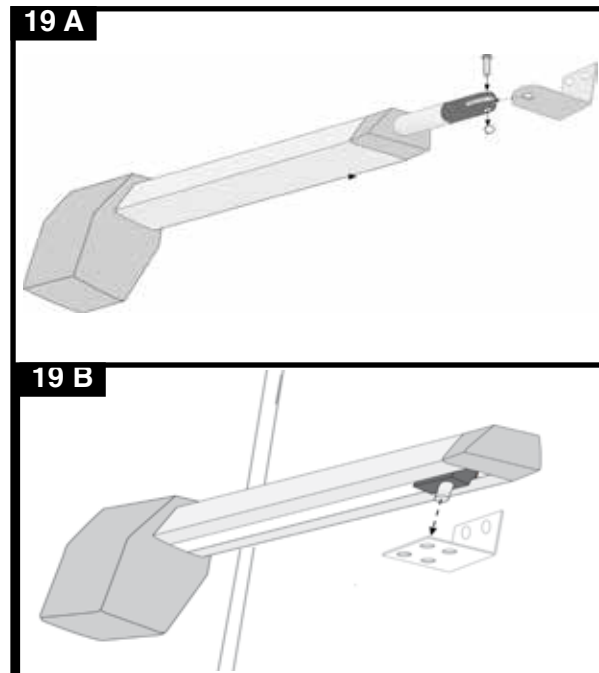
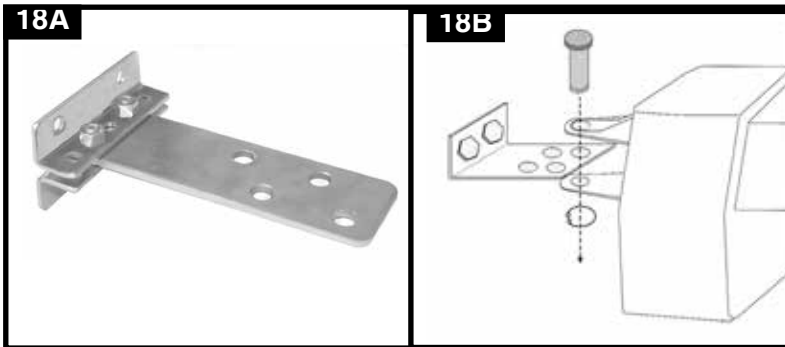
Warning:remember to reverse the polarity of the motor cables when connecting to the electronic board



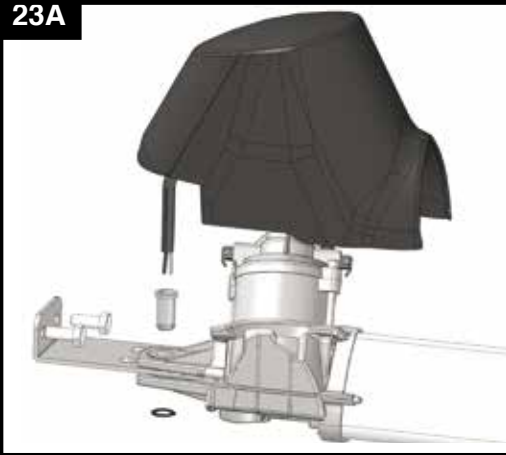
A = min. 8cm max. 14cm

B = min. 8cm max. 14cm





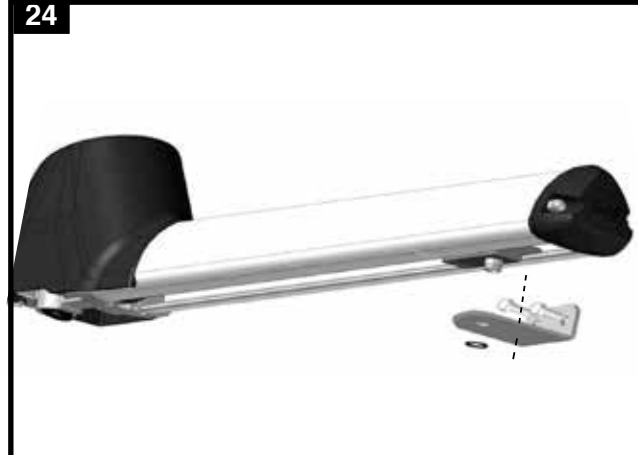
23A



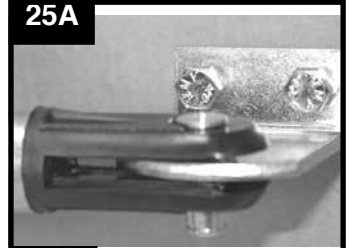
23B



24



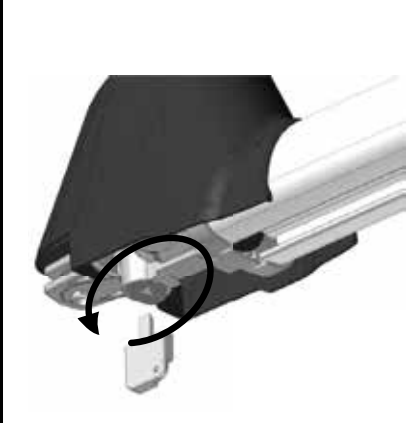
25A



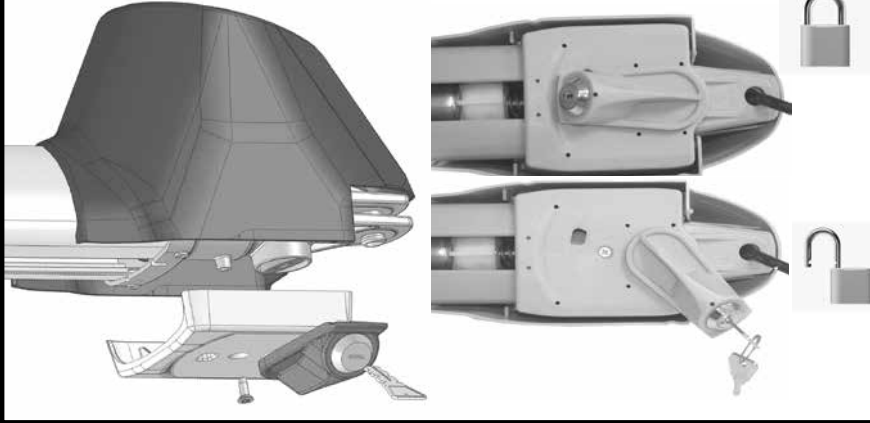
25B



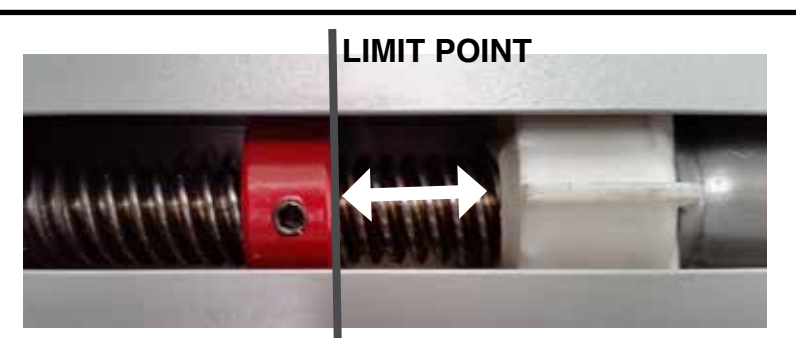
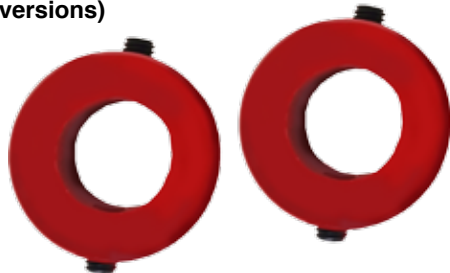
26A STANDARD manual release



26B EVO LOCK: optional manual release protection by key



27 Mechanical limits (only available on "FC" versions)



DUCATI Actuator's installation instructions

1. GENERAL CHARACTERISTICS and PRELIMINARY WARNINGS

The products described in this manual are intended to be used to automate hinged swing gates for residential/ commercial or industrial use, within the limits of use and size provided for each model. Incorrect installation can cause serious injuries. Before installing the automation you need to carefully read all the parts of the manual. If in doubt, stop installation and request clarification from the DUCATI HOME Assistance Service. The structure on which you are installing must be constructed in a workmanlike manner in accordance with local regulations and satisfy all safety requirements. The automation can not correct defects in the structure. Check that the gate leaves are perfectly balanced, that the hinges are in perfect condition and that the facility is fully operational and complies with safety regulations. Gates with structural problems should not be automated Warning: Ducati actuators are designed to be installed to be used indifferently on the right or left leaf of the gate.

WARNING! Any use other than those described in this manual is to be considered improper and prohibited!

Ducati's electromechanical actuators are provided with DC motor, worm screw gear. The motor must be run by a compatible original "DUCATI HOME automation" control unit only.

The actuator stops its movement by means of an amperometric detection system as the gate wing reach a mechanical stop (whether a fixed on the floor "STOPPER", or an on board limit if the actuator model is featured with). In case of obstacle detection, safety is also ensured by the amperometric detection system in compliance with EN laws.

In case of power failure (black-out), the actuators are provided with a manual release system.

Warning: to operate the manual release system is required to operate on the actuator witch is installed inside the property, it is therefore advisable to provide an independent pedestrian entrance.

CHECK PAGE 4 to see all actuator's models and overall dimensions

CHECK PAGE 5 to see the comparison table witch contains all technical data

2. SAFETY WARNINGS

Warning ! READ AND FOLLOW ALL INSTRUCTIONS. DUCATI door openers have been designed and tested to offer safe service provided it is installed, operated, maintained and tested in strict accordance with the instructions and warnings contained in this manual. Failure to meet the requirements stated in this instruction manual could cause severe injury and/or death, for which the manufacturer cannot be held responsible.

SAVE THIS INSTRUCTION MANUAL

Make sure everyone who's using or will be using the gate door opening system is aware of the dangers associated with this system. In case you will sell the property with the gate opener, Provided for copy of this manual to the new owner.

WARNINGS:

- Before starting the installation, check whether the product is suitable to automate your gate. If it is not suitable, DO NOT proceed with the installation.

Before installation:

Understand your new Door Opening system:

- Read this instruction manual in advance to thoroughly understand its function and features.
- Verify that this door opening system is proper for the type, size and weight of your door.
- Check the state of your door:- Make sure that your door has been properly installed and is functional.
- Check the structure of the door, walls or pillars: they must be sound and stable.
- Make sure your door is properly balanced and lubricated. An unbalanced door could cause serious injury or death!
- If the door binds, sticks or is out of balance, always call a trained, certified door systems technician to prevent serious injury or death.

- Repair or replace all worn or damaged door components prior to installation. Call a trained professional door systems technician for this.

- To avoid entanglement, remove any unnecessary ropes and disable any equipment such as locks, not needed for powered operation.

- To prevent damage to the door and opening system, always disable the locks before installing and operating the opening system.

Prevent serious injury or death by electric power:

- Be sure the power is not connected BEFORE installing the door control.

- NEVER connect the door opener to the power source until instructed to do so.

- The door installation and wiring MUST be in compliance with all local electrical and building codes

During installation

Ensure your personal safety:

- Never wear watches, rings or loose clothing while installing or servicing the opening system.They could get caught in the door opener mechanisms.

- High voltage wiring (110V-230V power) must be done exclusively by a competent professional and certified electrician.

Prevent serious injury or death:

- Be careful when manipulating with moving parts and avoid close proximity to areas where fingers or hands could be pinched.

- Use concrete anchors when installing any brackets into masonry.

- Do not activate your door opening system unless you are sure that the area of its travel is clear of persons, pets or other obstructions.

Watch the door through its entire movement. Never leave childrens without parental control in proximity of a gate opener in motion, opened, closed or stopped.

- Never permit children to play with remote control push buttons or transmitters of gate opener and prevent childrens to operate the gate opener by control push buttons or transmitters.

- Always keep remote controls out of reach of children.

- Install the electronic box of your opener out of reach of children and away of moving parts of the gate.

- Activate the gate only when it can be seen clearly, is properly adjusted and there are no obstructions to door travel.

- Always keep gate in sight until completely closed.

Prevent damage of the opening system and reduction of its safety features:

- The motor fixing brackets must be rigidly fastened to the pillar and to a well reinforced part of the gate.

- Never increase force beyond minimum amount required to close the gate door.

- Never use force adjustment to compensate for a binding or sticking garage door. After any adjustment is made, the safety system must be tested.

After installation

Verify correct installation:

- Upon completion of installation, test to make sure that your door opening system is working correctly, and test the safety system.

- The door must stop when it contacts an obstacle.

NOTE: CE safety rules. To be tested after installation and after each setting by a dynamometer.Max.

pressure on obstacle: 400N and must decrease to max.100N within 0,75seconds and decrease to 0,0N within 1 sec.(UNI EN 12453-EN12445) This measurement must be taken and tested 30cm/10cm and 5 cm from closed gate position.

- The safety system could fail if the door opener is not correctly installed.

- Verify power adjustment and settings after installation.

- Ensure that the parts of the door do not extend over public footpath or roads

- Install any fixed control at height of at least 1,5m and within sight of the door but away from moving parts
 - Make sure you have a second pedestrian access to your property.
- Remember: in case of power failure or any problem with your opener you might be unable to operate it from outside your property
- Save the unlocking key in a safe place out of reach of children, in order to permit to manually unlock (from inside) the gate and operate it manually in case of power failure or other problem.
- Ensure safety and prevent injuries:
- Place warning labels on the wall next to door control. permanently fix a label warning against entrapment in a prominent place or just near any fixed control
 - Without a properly working safety system, people (particularly small children) can be **SERIOUSLY INJURED** or **KILLED** by a closing door. After installation ensure that the mechanism is properly adjusted.
 - Never permit anyone to cross the path of a closing garage door. No one should go close to a stopped, partially open door.
 - Never leave children unsupervised near a door opener, whether moving, open, closed or stopped.
 - Never permit children to play with the door opener's remote control buttons or transmitters, and do not allow children to use them to operate the door opener.
- Always keep remote controls out of reach of children.
- Install wall-mounted door controls (optional) out of the reach of children and away from moving parts of the door.
 - Always keep the door in sight until completely closed.
 - While the door is closing, do not attempt to stop it by hand. This is extremely dangerous.

MOUNTING HARDWARE:

To complete the installation you need following material: plastic hammer; pinching for Seeger; level; Cross screwdriver PH2; flat screwdriver 2,5 mm; adjustable wrench; electric cable H07NRF length according to the connection of the two actuators to the control box; 4 bolts for fixing plates with the gate with a diameter 8 mm length according to the thickness of the gate; 4 bolts for fixing plates with the pillar with a diameter 8 mm length according to the thickness of the pillar; pinching; vice; cable clamp. Cables for additional connections (0,5mm²) Prepare all the tools and material of use necessary to the installation. Tools must be in perfect state and in conformity with the safety rules indicated by the national law. Prepare and install an insulated underground ICT25 mm sheath to pass the actuator cable (2 X 1 mm²) to the control box as well as the photocells cables.

3. GENERAL INSTALLATION SCHEME, PILLAR DIMENSIONS & STOP LIMITS

The diagram on page 3 shows an example of a typical automatic system.

Referring to this diagram, determine the approximate location where you will install each component envisaged in the system and the most appropriate connection diagram.

The motors are to be connected with outdoor pole cable type H07NRF min. 0,75mm²

The accessories are connected with a bipolar outdoor cable min. 0,35mm²

Useful components for an ideal automatic system:

- 1= Control box with containing electronic board with on board radio receiver, toroidal transformer, inner battery compartment.
- 2 = actuators
- 3 = blinking light
- 4 = external antenna
- 5 = key switch
- 6 = radio remote control
- 7 = radio keypad
- 8 = solar panel
- 9 = pair of photocells (receiver + transmitter)

WARNING: READ AND UNDERSTAND PAGE 4:

Pillar dimension, how to determine measure A & B in case of gate opening towards inside or outside, Gate stop limits.

For installation on gates opening to the outside, you need to use telescopic actuators and install referring to the mounting scheme of fig.12 on pg. 6. Remember that with a gate opening towards the outside is necessary to reverse the polarity of the motor cables (blue/brown cable). Check the feasibility of such a system taking into account the overall dimensions. Make sure that the gate do not open onto a public passageway. It is advisable to prepare a plant with safety photocells to be placed in such a way that the doors, opening towards the outside do not create damages to things and people who are on the outside of the property, such as parked vehicles.

4. POST MOUNTING BRACKETS (read carefully page 4)

4.1 – Pillar/ Coloumn/ fence post: determine the position where to install the post mounting bracket

According to the actuator model, and to the pillar dimension, calculate the ideal fixing position of the rear bracket by consulting the installation schema of your actuator's model

HC312.....page 5	HC418.....page 9	SW400.....page 12
HC412.....page 6	HC518.....page 10	SW400T.....page 13
HC512.....page 7	HC618.....page 11	
HC612.....page 8		

EVO 700.....page 14	EVE 900 FC.....page 16
EVO 700Tpage 15	EVE 900 T FC.....page 17

The post bracket fixing position is extremely important as it shall determine the gate opening angle and speed and actuator thrust strength. See the limit measures "A and "B"

Remind: with a high "B" measure, the opening will be slower. To fix the plate on the pillar use anchors accordingly to the pillar construction material.

Take into account that the actuator must be installed perfectly horizontal and at a height such that the front fixing plate corresponds to a reinforced area of the gate. It is recommended to install the actuator not less than at 15cm from the ground.

Important! to allow a linear movement of the automation A & B measures should be similar.

Warning: if the structure is impossible to comply with the dimensions stated in the table (ex. big masonry pillar), you will need to carry out masonry works to allow the correct positioning of the actuator.

4.2. Fix the bracket to the Pillar/ Coloumn/ fence post

Each actuator model is provided with specific brackets.

Mark middle of post bracket slots on pillar/ coloumn/ fence post.

Fix the bracket on the pillar. Use bolts anchors or screws suitable for the structure (tubular iron / pillar masonry / concrete)

4.3 Fix the actuator to the post bracket:

Fasten the actuator to the bracket of the rear fixing with the pin and seal ring

- for EVE actuators see pag.19
- for "HC" actuators see pag.20
- for "SW" & EVO actuators see pag.21

DUCATI Actuator's installation instructions

5 – FRONT MOUNTING BRACKET

5.1 How to determinate the position where to install the front mounting bracket

Warning:

telescopic actuators are supplied with telescopic tube are provided with totally retracted piston, therefore the fixing position of the front bracket to the gate must be determined **with the gate in open position**.

resume of telescopic actuators models:

HC312; HC412; HC512; HC612; SW400T; EVOT900; EVE900T (+ corresponding 24V versions)

NON telescopic actuators are provided with the fixing pin plate positioned to the front, therefore the fixing position of the front bracket to the gate must be determined **with the gate in closed position**.

resume of NON telescopic actuators models:

HC418; HC518,HC618, SW400; EVO900; EVE900 (+ corresponding 24V versions)

5.2 Fix the front bracket to the gate

- The actuator must be fastened to the port fixing bracket, keep it perfectly horizontal,
- bring the actuator to the gate leaf and identify the fixing point of the front plate to the wing gate.
- Mark middle of front bracket slots on the gate wing.
- Fix the bracket on the gate. Use bolts anchors or screws suitable for the gate (wood/ iron/...). It 'also possible to weld the bracket to the wing of the gate.
- Fasten the actuator to the bracket. Fix it with the pin and seal ring

- for EVE actuators see page 19
- for "HC" actuators see page 20
- for "SW" & EVO actuators see page 21

6. MANUAL RELEASE

The actuators are equipped with a release system which allows the manual handling of the gate in case of emergency.

The release system is operated through the use of three-sided key that must be inserted into the triangular slot.

Turn of about 40 ° up to the stop in a counterclockwise direction. The engines will be unlocked and the doors will be moved manually.

The reverse operation will restore the automatism traction.

Warning! perform the manual release only once the actuator is installed to the gate.

- for EVE actuators see page 19
- for "HC" actuators see page 20
- for "SW" & EVO actuators see page 21

For "EVE" actuators the optional " EVE LOCK" manual release key protected accessory is also available. see page 19 fig. 15B

For "SW & EVO" actuators the optional " SW LOCK" manual release key protected accessory is also available. see page 21 fig. 26B

7 - MECHANICAL LIMITS

It is reminded that, with exemption in case of use of actuators featured with integrated mechanical or electrical limits, **it is mandatory to install mechanical gate stop limits to be firmly placed to the ground in correspondance to gate closed and open position. (see page 4) The gate operator stops running by amperometric detection when the door detects and presses on the mechanical stop.**

FC actuator versions are equipped with integrated mechanical limits: check page 18 technical data table. for FC actuator versions, where the on-board limit is provided, it is not mandatory to have gate stops fixed to the ground.

7.1 on board mechanical limits adjustment (for FC actuator's versions only)

- Release the actuator
- Manually place the gate wing in the open desired position. hold the gate in the desired position.
- Loosen the on-board mechanical stop screw with an Allen key
- Slide the on-board mechanical stop along the large screw until it goes into contact with the nut screw (or sliding shoe plate)
- stop & firmly tighten the limit switch by fastening the grains using an Allen key.
- you can repeat the same procedure to adjust the second limit and set it for the gate leaf closed position.

7.2 on board electric limits adjustment (for EVE series in the "FCA" versions only)

Models: EVE in the "FCA" versions are equipped with 2 electric limits. To adjust the position of the limit switches use a flat screwdriver through the holes positioned in the front of the actuator. By turning the screws, you will adjust the electric limit along the stroke of the rod. The limits position is indicated on the side of the actuator by special marker

8. FINAL CONTROL OF CORRECT INSTALLATION

Once the actuator is installed, it is recommended to check that it is set perfectly horizontal and is well balanced.

- Unlock the actuator and perform a manual maneuver to verify that there are no points of greatest friction along the stroke.
- The gate wing must move without effort.
- The gate wing must stop on the mechanical gate limit (or, where provided, on the on-board limits)

9. MAINTENANCE

The actuators do not require any maintenance.

Only as a precautionary measure and in case of intensive use you should check the integrity of the electrical cable connected to the motor

WARNING: NEVER USE GREASE LUBRICATE THE MECHANICAL PARTS!

2. PREPARATIONS

Prepare the insulated cable ducts for motors and accessories wires (not supplied). Prepare the power plant to the location where you intend to attach the control unit (not necessary in the case of self-powered SOLAR PANEL powered openers) **Warning:** the power of the high-voltage current must be managed exclusively by a specialized technician. Do not manage yourself the power supply connection 230 / 110V: **Danger of Death!**

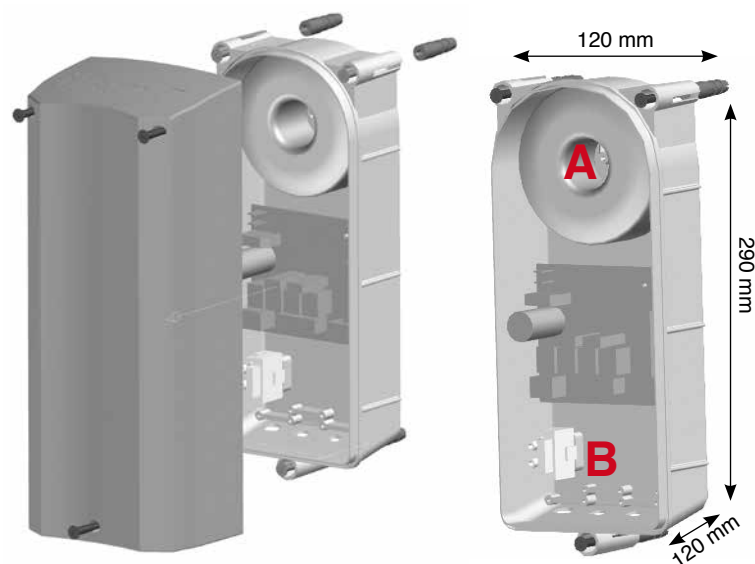
Caution: it is recommended to prepare a disconnection device to be used in case of emergency. **Warning:** the control unit and activation commands must be installed in a not accessible place and at a height from the ground, not allowing the use by unauthorized persons or children.

13.CONTROL BOX INSTALLATION

Fix the bottom of the control unit to the wall or pillar using appropriate screws and plugs (not supplied). It is advisable to seal any holes to prevent water infiltration, moisture, dust and insects. It is recommended to provide appropriate compression sleeves (not supplied)
 Small control box KONTROL" Small" see pic.39 Large control box KONTROL"Large" see pic.40 The control Kontrol "Large" is equipped with a inner protective cover underneath which are inserted the electronic board and the toroidal transformer.

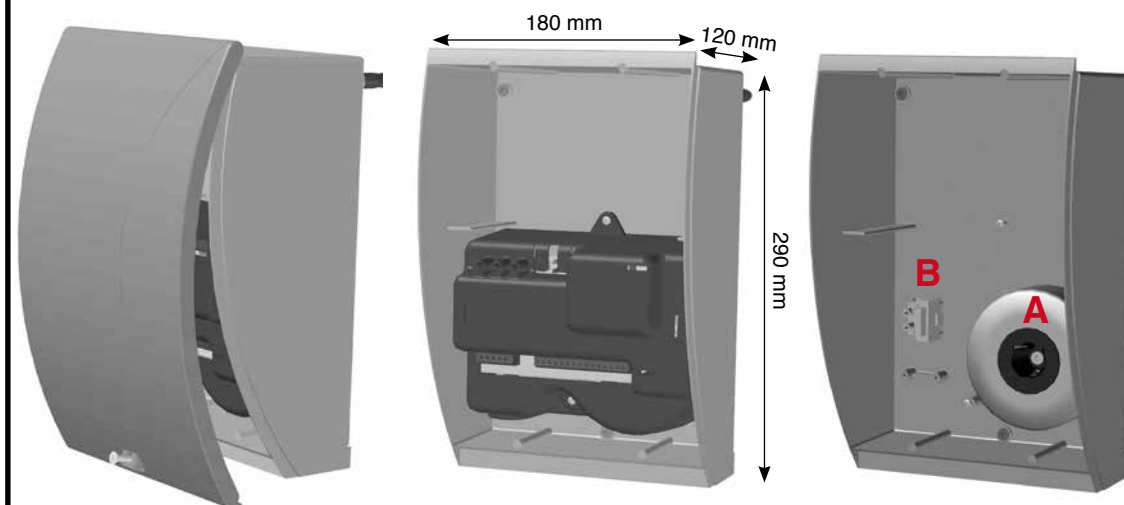
39

Kontrol"mini"
 "Small size" kontrol box



40

Kontrol
 "Large size" control box



DUCATI Main AC power supply

14. MAIN POWER SUPPLY 230V / 110 V

The main power supply high voltage 230V (110V on request) connection must be performed only by a licensed electrician! Warning: danger of death.

The power cable is connected to the terminal block / fuse protection upstream of the toroidal transformer (pic.41)

The transformer is already connected to the PCB. Check for proper connection.

Connect cables from the transformer to the circuit board. Remember:

The transformer has 3 output cables, but for 12V motors only black and yellow cable must be connected. while red cable (24V must be used instead of yellow cable only for 24V motor versions) Black = 0 + Yellow = 12V to be used for 12V motors

Black = 0 + Red = 24V to be used for 24V motors

Solar panel powered openers do not require any high voltage connection. Nevertheless, they are always provided with a toroidal transformer and in case of emergency or to recharge the battery the main voltage 230V (110V on demand) can be connected to the terminal block / fuse protection upstream of the toroidal transformer (pic.41)



WARNING! To prevent damage during shipment, the transformer could be provided not pre-installed in the control panel. it is supplied with a fixing cone and screw to fix it to the bottom of the control box.

See pic. 39/ 40: Place the transformer in its correct position (A) and fix it to the bottom of the control box unit using the special cone support and screw it.

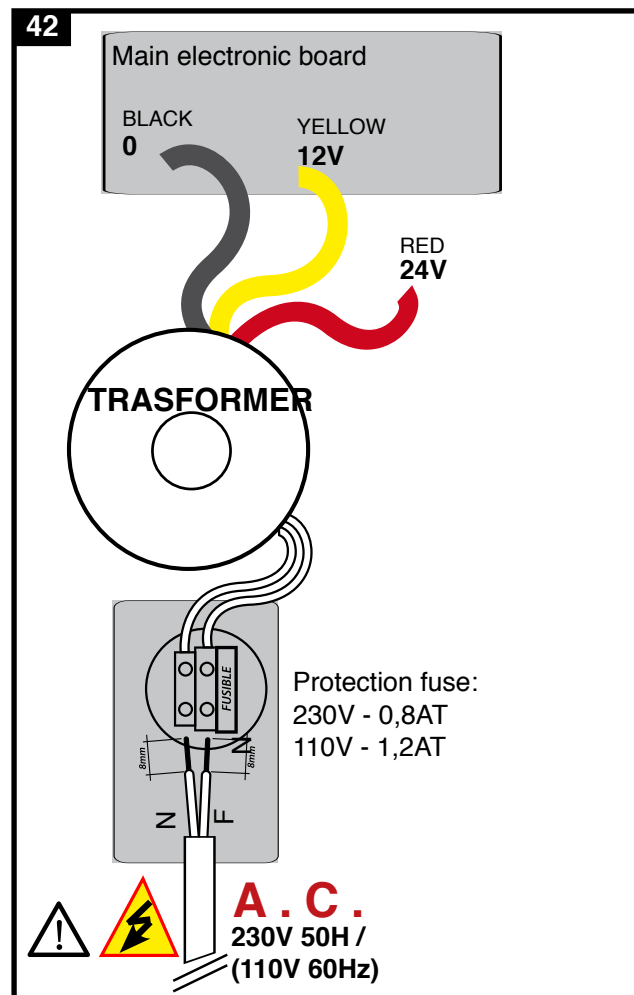
Fix the power supply 230V / 110V connectors terminals with protection fuse in the position (B) of the bottom of the control box unit (see pic. 39-40).

Connect cables from the transformer to the circuit board. Remember:

The transformer has 3 output cables, but for 12V motors only black and yellow cable must be connected. while red cable (24V must be used instead of yellow cable only for 24V motor versions)

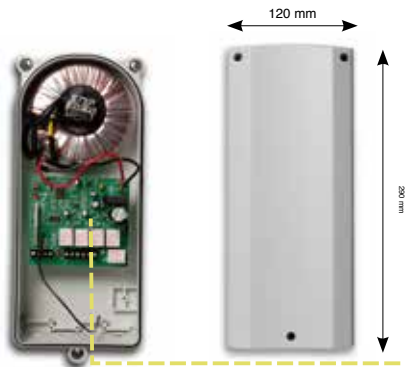
Black = 0 + Yellow = 12V to be used for 12V motors

Black = 0 + Red = 24V to be used for 24V motors



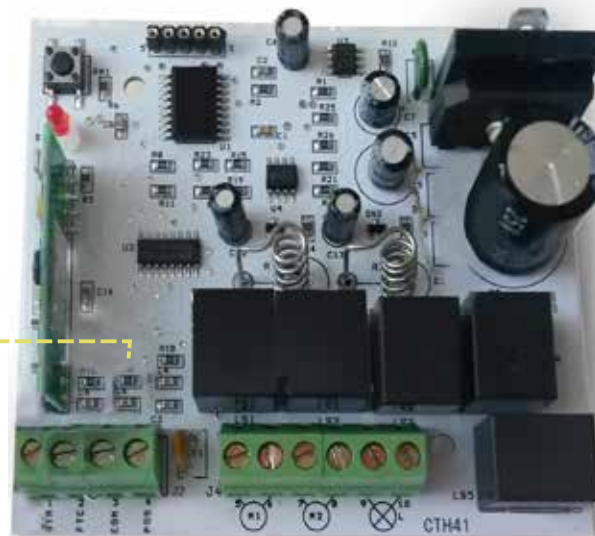
7851

Small Control Box with CTH41



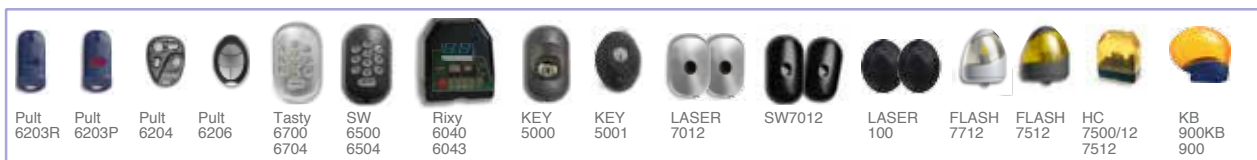
CTH41

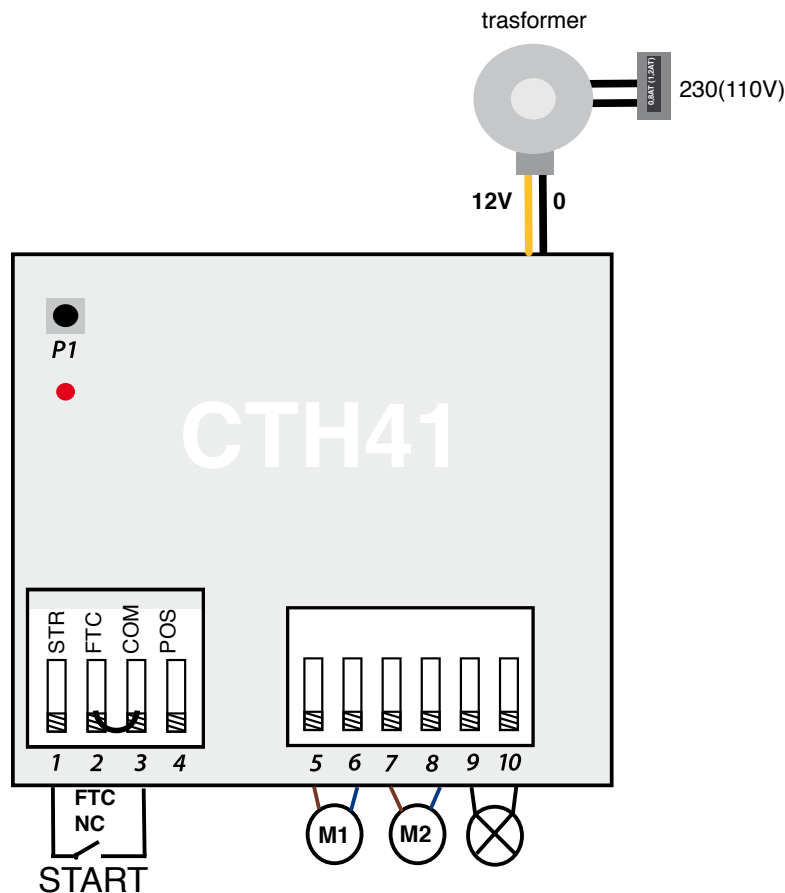
Electronic board



TECHNNICAL DATA	CTH41	CTH41 MONO
Power supply (on demand)	230V (110V on demand)	
Use on 2 wings gate	√	-
Use on 1 wing gate	-	√
Automatic protection fuse	√	
Transformer protection fuse	0,8A T (1,2A T)	
Toroidal transformer's Watt	80W	
Output services	12V	
Power consumption in stand-by	15mA	
Radio receiver (channel)	1	
Remote control storage capacity	10	
Radio transmission protocol	Ducati rolling code 433MHz	
Remote control automatic learning	√	
On board Antenna	√	
Automatic closure function (timerized)	√	
Anti-pressure safety system	√	
Safety beam/ Photocells input	√ NC	
Full cycle START (NO contact)	√ NO	
Flashing light output	12V max 10W	
Gear anti-pressure system	√	

Compatibles accessories





■ CTH41

Connections and adjustments:

ATTENTION ! all settings have to be made with gate in closed position

CONNECTORS:

- 1/3 (STR) START contact NO full cycle opening
- 2 (FTC) Photocell NC contact (FTC)
- 3 (COM) Common (start & photocell)
- 4 (POS) + power photocell positive 12V dc
- 3 - power photocell negative
- 5 M1 actuator brown cable
- 6 M1 actuator blue cable
- 7 M2 actuator brown cable
- 8 M2 actuator blue cable
- 9/10 12V 10W max. blinking light

Photocells bridge: between connectors 2/3

Remove the bridge only when connecting the photocells.

The phase shift between the 2 wings is automatically set and can not be modified.

RED LED =

- steady on while the door is open or closed= step by step operating mode is set.
- blinking while the gate is open= automatic pause time counting before the gate re-closes.
- also used as indicator during the remote control memorizing procedure

Fusibile : a ripristino automatico

Transformer input= 0 (black cable) 12V (Yellow cable)

PUSH BUTTON:

P1 = FULL CYCLE push button to store or cancel the radio transmitters codes on the electronic board.

This button is used to set complete opening cycles. Red LED visual indicator.

HOW TO MEMORIZE/ DELETE REMOTE CONTROL CODE IN THE ELECTRONIC BOARD (see also remote control chapter)

Remote controls setting: to synchronize a remote control channel:

On the main board Press P1 to memorize a remote control Channel for complete opening cycle.

Release P1.

As the red LED turns on, push the selected radio remote control button. After the red LED blinks, wait until the red LED turns off. Operation completed.

Maximal storage capacity: 10 channels

To delete the stored channels press P1 for about 30 sec. until the red LED turns off.

All remote control codes will be deleted.

OPERATING MODE: STEP BY STEP or AUTOMATIC

the electronic board is set on “STEP by STEP” working mode.

with this setting a pulse controls the opening and a second impulse closes the gate.

How to set the automatic closure function(the pause time before the gates automatically closes is 30seconds and cannot be adjusted):

1- cut off the power to the board and wait for 5 seconds

2- keeping P1 key pressed, power the board.

the red LED will switch on

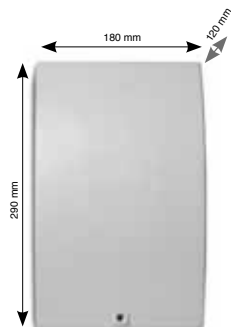
Operation performed.

Following the same procedure you will return to the step by step operating mode.

■ CTH41 MONO

special version for use on single wing gate: only connect M1. Other connections remain the same

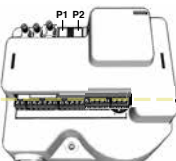
CTH42 Electronic board



7855 Complete Large size control box with CTH42

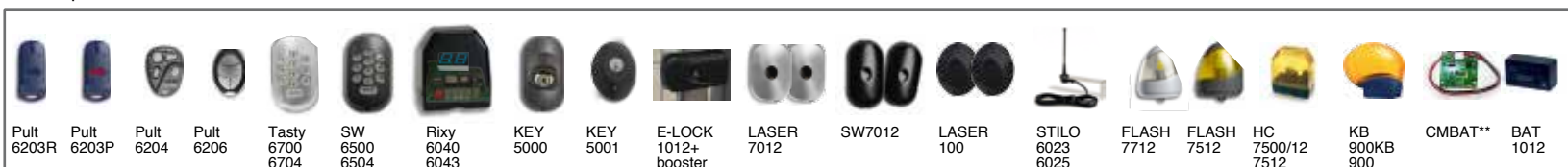


C/M/BAT
optional additional battery
charger module



TECHNNICAL DATA	CTH42
Power supply (on demand)	230V (110V on demand)
Use on 1 or 2 wings gate	✓
Protection fuse	✓ 10AF
Transformer protection fuse	0,8A T (1,2A T)
Toroidal transformer's Watt	105W
Output services	12V
Power consumption in stand-by	22 mA
Radio receiver (channel)	2 channels
Remote control storage capacity	10
Radio transmission protocol	DUCATI rolling code 433MHz
Remote control automatic learning	✓
On board Antenna	✓
External antenna input	✓
Automatic close function (timerized)	0-100 sec.
Anti-pressure safety system	✓
Motor power adjustment	✓
Timerized Courtesy light contact	✓
Output for elektrolock	12V dc
Safety beam/ Photocells input	✓
Full cycle START (NO contact)	✓
Pedestrian cycle START (NO contact)	✓
Flashing light output	12V max 10W
Output to optional battery charger module(CMBAT)	✓
LED indication of Power supply	✓
Gear anti-pressure system	✓

Compatibles accessories



Pult 6203R Pult 6203P Pult 6204 Pult 6206 Tasty 6700 6704 SW 6500 6504 Rixy 6040 6043 KEY 5000 KEY 5001 E-LOCK 1012+ booster LASER 7012 SW7012 LASER 100 STILO 6023 6025 FLASH 7712 FLASH 7512 HC 7500/12 7512 KB 900KB 900 CMBAT** BAT 1012

Connections and adjustments:

ATTENTION ! all settings have to be made with gate in closed position

CONNECTORS:

- 1/2 antenna / sock
- 3/5 START contact NO full opening cycle
- 4 photocells NC contact
- 5 common (photocells & START)
- 8/9 START contact NO for pedestrian opening cycle

- 10 + power photocell positive
- 11 - power photocell negative
- 12/13 12V 10W max. blinking light
- 14 M2 actuator blue cable
- 15 M2 actuator brown cable
- 16 M1 actuator blue cable
- 17 M1 actuator brown cable

- 18/19 output for garden/courtesy light (contact NO/NC max 0,5A) use a relay if ac
- 20/21 12V ac electrolock output protection fuse 10AF
- Connectors (BAT+/-) to battery charger module CBAT
- Transformer input: 0= black cable + 2V yellow cable

The phase shift in between gate wings is automatically set.

M2 follows M1 in opening after about 3 sec. and vice versa during closing.

Photocells bridge: between connectors 4/5

Remove the bridge only when connecting the photocells.

Red LED:

- indicate the procedure to memorize/delete remote controls codes
- while gate is open: it blinks if the automatic closure has been activated

Green LED:- if steady on = the board is powered

PUSH BUTTONS P1; P2; J1

P1 = FULL CYCLE push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set complete opening cycles. Red LED visual indicator.

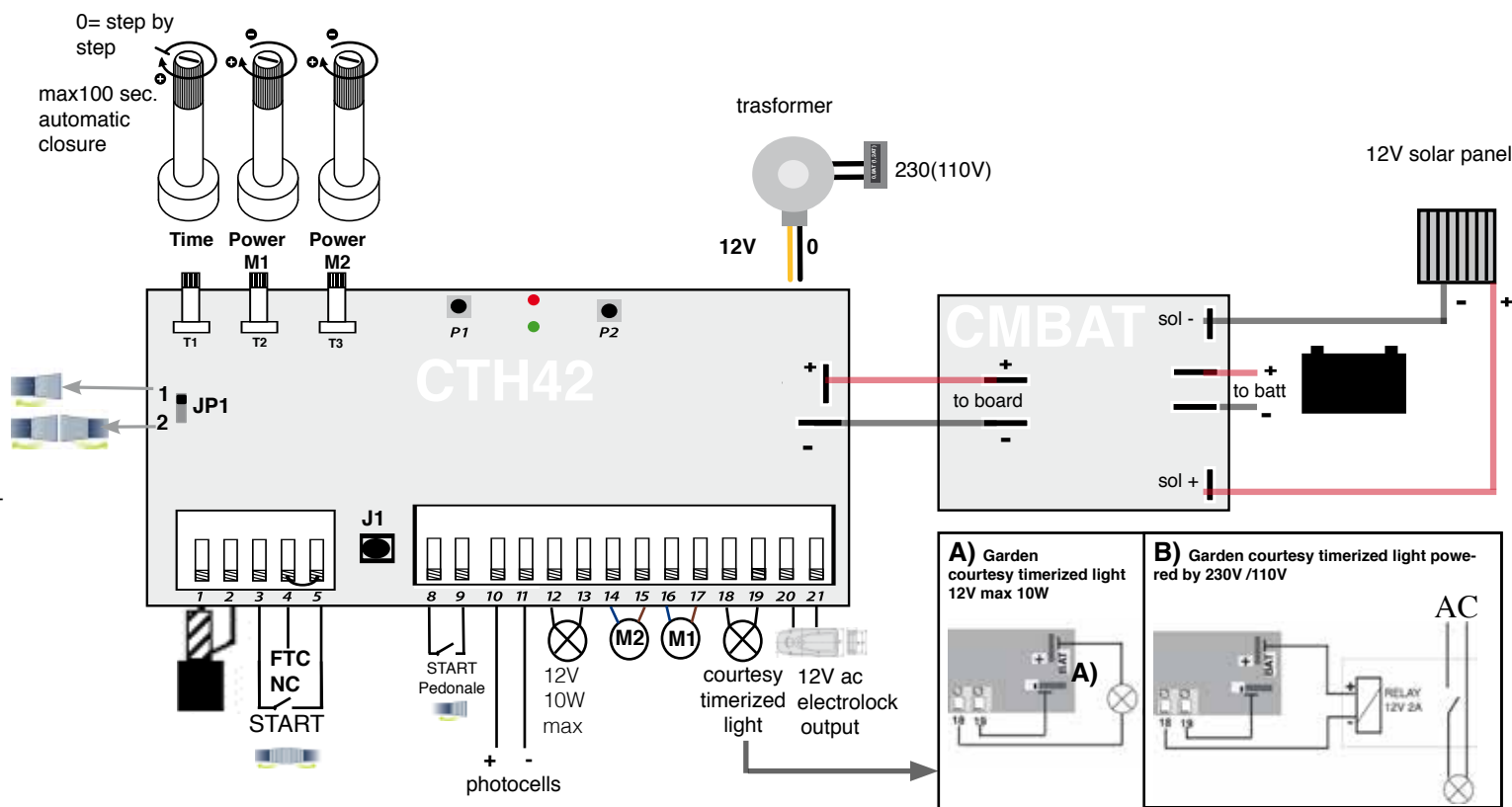
J1 = PEDESTRIAN ACCESS push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set pedestrian opening cycles (partially activates only the door corresponding to the motor M1 only). Visual indicator: red LED visual indicator.+ yellow LED, then only red LED.

P2 =deactivate/activate the Gear anti-pressure system (with the anti-pressure-system activated the gate reaches the mechanical limit it will invert the direction for 0,25sec to release pressure on wing inghes and actuator's gear). This function is automatically set in the board. To delete this feature, proceed as follows: press P1 for 1 second. the red LED lights. Press P2 for a second. function deactivated. To restore the function, repeat the procedure.

JP1 SWITCH

JP1 switched on position 1= 1 wing gate use

JP1 switched on position 2= 1 wing gate use



HOW TO MEMORIZE/ DELETE REMOTE CONTROL CODE IN THE ELECTRONIC BOARD (see also remote control chapter)

Remote controls setting: to synchronize a remote control channel:

On the main board Press P1 to memorize a remote control Channel for complete opening cycle. Release P1.As the red LED turns on, push the selected radio remote control button. After the red LED blinks, wait until the red LED turns off. Operation completed.Maximal storage capacity: 10 channels To delete the stored channels press P1 for about 30 sec. until the red LED turns off. All remote control codes will be deleted.

POTENTIOMETERS

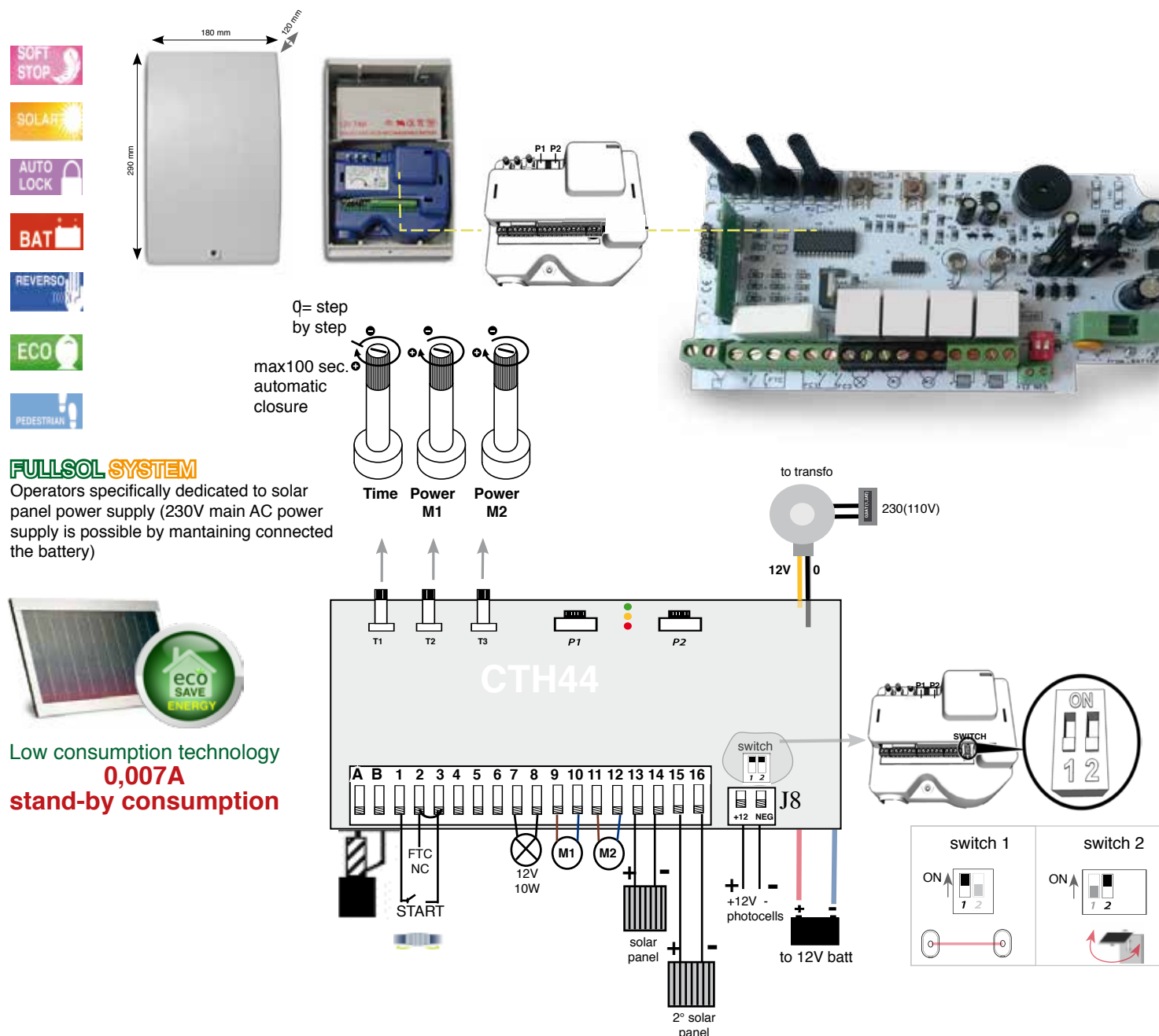
TIME= potentiometer to set the “step by step” mode of use or automatic closure

The potentiometer completely turned counterclockwise(position = 0) to use the standard setting “step by step” mode of use. with this setting a pulse controls the opening and a second impulse closes the gate. By rotating the potentiometer clockwise, you will set the automatic closure function.Turning the knob increases the time. Maximum pause time = 100 seconds with potentiometer fully clockwise.

POWER M1: actuator M1 power /obstacle detection sensitivity adjustment

POWER M2: actuator M2 power /obstacle detection sensitivity adjustment

Turn the potentiometer clockwise to increase power and reduce obstacle detection sensitivity



FULLSOL SYSTEM

Operators specifically dedicated to solar panel power supply (230V main AC power supply is possible by maintaining connected the battery)



Low consumption technology
0,007A
stand-by consumption

TECHNNICAL DATA	CTH44
Power supply (on demand)	230V (110V) + 12V battery / solar panel + battery
Solar panel power supply	✓
Use on 1 or 2 wings gate	✓
Protection fuse	✓
Transformer protection fuse	✓ 0,8AT (1,2AT)
Toroidal transformer's Watt	105W
Output services	12V
Power consumption in stand-by	10,6mA
Radio receiver (channel)	2 channels
Remote control storage capacity	10
Radio transmission protocol	DUCATI rolling code 433MHz
Remote control automatic learning	✓
On board Antenna	✓
External antenna input	✓
Automatic close function (timerized)	✓
Anti-pressure safety system	✓
Motor power adjustment	✓
Safety beam/ Photocells input	✓ mod 7120
Full cycle START (NO contact)	✓
Flashing light output	12V 10W
Battery output with on board battery charge management	✓
Low battery charge status indication by flashing light	✓
Solar panel input with on board management	✓
Low battery charge status indication by LED light	✓
Gear anti-pressure system	✓
LED indication of Power supply	✓
LED segnalazione stato batteria	✓
Acoustic signal + LED indication of ideal solar panel position	✓
Acoustic signal + LED indication of correct photocells alignment	✓

Connections and adjustments:

ATTENTION ! all settings have to be made with gate in closed position

ATTENTION ! in case of use with power from photovoltaic panel use low consumption photocells mod. 7120 only!

WARNING: it is mandatory to have the battery full charged before to power the electronic board. Charge the battery before use. To charge the battery:

- Use the supplied 12V transformer, connect it to the board (yellow-black cables), connect the battery to the board first (respect polarity red cable= + positive / black or blue cable= -negative), connect a electric wire min.0,75mmq to the terminals downstream of the transformer. Plug the electric wire to a power outlet.
 - Use a battery charger with charge control (ex. our optional battery charger MPBAT). respect polarity. wait until the battery is fully charged (green LED on MPBAT is steady on).
- You must check the battery charge status by the control board:see herunder P2 procedure

CONNECTORS:

A/B antenna / sock

1/3 START contact NO full opening cycle

2 FTC photocells NC contact (to be connected to terminal 3 of low consumption photocell model RX 7120)

7/8 12V 10W max. blinking light

9 M1 actuator brown cable (note: M1 is the motore installed on the wing that opens first)

10 M1 actuator blue cable

11 M2 actuator brown cable

12 M2 actuator blue cable

13 + 12V solar panel positive

14 - 12V solar panel negative

15 + 2° solar panel positive (the use of a 2° 12V solar panel is not mandatory)

16 - 2° solar panel negative

J8: +12 + power photocell positive

NEG - power photocell negative

Connectors (BAT+/-) to battery 12V

Warning: It is possible to power the board by 230V/110V (through the transformer) instead of by solar panel, but the battery must be always kept connected to the board.

The phase shift between gate wings is automatically set. M2 follows M1 in opening after about 3 sec. and vice versa during closing.

Warning: Photocells bridge: between connectors 2/3.

Remove the bridge only when connecting the photocells.

● **Green LED** = indicates the battery is fully charged

● **Red LED** = indicates: -full cycle remotes control storage procedure/ the battery is out of charge/ blinking while the gate is open indicates the automatic closure working mode is settled.

● **Yellow LED** = indicates:

- pedestrian opening cycle remote control storage procedure
- battery is almost discharged

SWITCH 1 = switch it ON (upper position) activates the ACOUSTIC and LED GUIDED PHOTOCELLS ALIGNMENT SYSTEM

Connect the low consumption 7120 photocells to the electronic board. Put the photocell's alignment switch (No. 1) in the up position. Try to align the photocell receiver to the photocell transmittent following the acoustic and LED signals until you obtain a perfect alignment.

Long “BEEP” = CORRECT ALIGNMENT = on the board the green LED is ON intermittent “BEEP-BEEP-BEEP”= NOT ALIGNED = on the board red or yellow LED is ON. When the alignment procedure is finished, put the alignment switch (1) back to the down position; otherwise the system will not operate.

SWITCH 2 * = switch it ON (upper position) activates the **check for better solar panel positioning**

REMEMBER: Perform this operation between noon and 2:00 p.m.

warning: switch 1 must be OFF (lower position)

To find the better solar panel alignment, check if the green LED on the control panel is on. Meanwhile, the acoustic signal must emit a continuous BEEP to show that the solar panel is in a good position. If the acoustic signal is intermittent and the red or yellow LED is on, it means that in this position exposure is inadequate for charging. In this case, move the panel into other attachment positions until you find a good one. Solar panel must always be positioned toward south. Once finished the procedure, put the switch 1 OFF (lower position)

PUSH BUTTONS P1; P2;

P1 = FULL CYCLE push button to store or cancel the radio transmitters codes on the electronic board.

This button is used to set complete opening cycles. Red LED visual indicator.

P1 + P2= PEDESTRIAN ACCESS push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set pedestrian opening cycles (partially activates only the door corresponding to the motor M1 only) to memorize a remote control push button to command the pedestrian opening cycle: press P1, hold P1 pressed, press P2. release P1 and P2, then press the remote control push button and hold it pressed for about 4 seconds until the red LED confirm the remote control push button has been stored.

P2 = BATTERY CHARGE STATUS CHECK the battery must be connected to the board. (check the correct polarity) Press and hold the P2 button to check the battery charge status, viewing the color of LED lights.

Make sure that green LED is on, otherwise proceed to a full battery charge. If the battery is discharged, the system goes into a protection state and will stop working. outcome of a new control tests. it will be necessary to repeat the checking procedure until the battery is checked to be fully charged (green LED on) in this way the board will be restored.

Red LED on +Sound Buzzer = Low battery: the voltage is lower than 11,2V

yellow LED ON = Battery partially discharged: the voltage is between 12.4 and 12.9V

Green LED on = Battery charged: the voltage is greater than 12.9V.

HOW TO MEMORIZE/ DELETE REMOTE CONTROL CODE IN THE ELECTRONIC BOARD (see also remote control chapter)

Remote controls setting: to synchronize a remote control channel:

On the main board Press P1 to memorize a remote control Channel for complete opening cycle.

Release P1. As the red LED turns on, push the selected radio remote control button. After the red LED blinks, wait until the red LED turns off. Operation completed. Maximal storage capacity: 10 channels

To delete the stored channels press P1 for about 30 sec. until the red LED turns off.

All remote control codes will be deleted.

POTENTIOMETERS

TIME= potentiometer to set the “step by step” mode of use or automatic closure

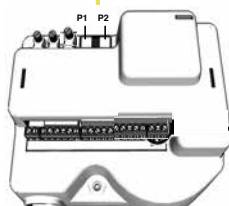
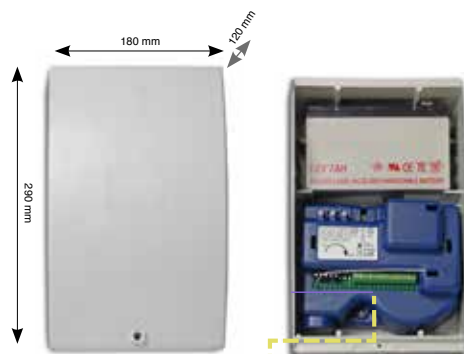
The potentiometer completely turned counterclockwise(position = 0) to use the standard setting “step by step” mode of use. with this setting a pulse controls the opening and a second impulse closes the gate. By rotating the potentiometer clockwise, you will set the automatic closure function. Turning the knob increases the time. Maximum pause time = 100 seconds with potentiometer fully clockwise.

POWER M1: actuator M1 power /obstacle detection sensitivity adjustment

POWER M2: actuator M2 power /obstacle detection sensitivity adjustment

Turn the potentiometer clockwise to increase power and reduce obstacle detection sensitivity

Use on single wing gate: connect motor M1 only.



KONTROL 9048

Complete Large size control box with CTH48

DUCOSOL SYSTEM

Versatile, operates by 3 type of power supply without any additional modules required:

- 1) A.C. 110/230V 60/50Hz
- 2) by emergency battery
- 3) By solar panel



Low consumption technology
0,007A
stand-by consumption

TECHNNICAL DATA	CTH48	CTH48/24
Power supply (on demand)	230V (110V) / 12V battery/ 12V solar panel	230V (110V) / 24V battery/ 24V solar panel
Solar module power supply	√ 12V	√ 24V
Use on 1 or 2 wings gate	√	
Protection fuse	√	
Transformer protection fuse	√ 0,8AT (1,2AT)	
Toroidal transformer's Watt	105V	
Output services	12V	24V
Power consumption in stand-by	0,007A	
Radio receiver (channel)	2 channels	
Remote control storage capacity	20	
Radio transmission protocol	DUCATI rolling code 433MHz	
Radio receiver self learning	√	
On board Antenna	√	
External antenna input	√	
Automatic close function (timerized)	√ (1-100 sec)	
Anti-pressure safety system	√	
Motor power adjustment	√	
Reverse movement on obstacle detection	√	
Electric limit switch input	-	
Courtesy light contact	√	
Output for elektrolock (requires an elektrolock with booster)	12V dc output	24V dc output
Elektrolock use while power by solar module/ battery	√ with additional booster only	
Safety beam/ Photocells input (NC contact)	√12V	√ 24V
Full cycle START output (NO contact)	√	
Pedestrian cycle START output (NO contact)	√	
Emergency STOP button (NC contact)	√	
Flashing light output	12V max 10W lamp	24V max 10W
Output to battery with on board charger	√	
Indication of battery charge status by blinking light	√	
solar panel input	√ 12V	√ 24V
LED indication of Power supply	√	
Slowdown (soft stop)	√	
Gear anti-pressure system	√	
wings time lag adjustment	√	
Status indicator output (open, closed, moving)	√	

Compatible accessories





ATTENTION:

USE OF PHOTOCELLS ON CTH48

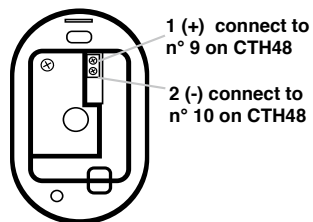
It is highly recommended to use original DUCATI photocells only. Use only low consumption photocells model 7120 in case of solar panel power supply.

It is recommended to use photocells model DUCATI 7012 in case of standard supply by 230/110 V

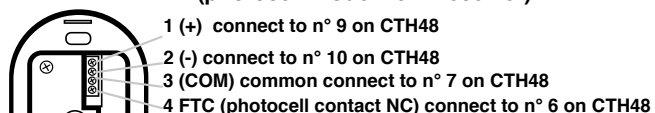
For different needs first contact our technical department before connecting any non original photocells model.

Attention: If photocells are connected take out the photocells bridge between connectors 6 & 7

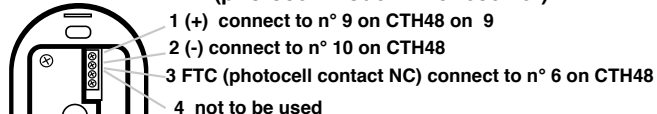
TX (photocell transmitter Same for both 7120 & 7012



RX (photocell model 7012 receiver)

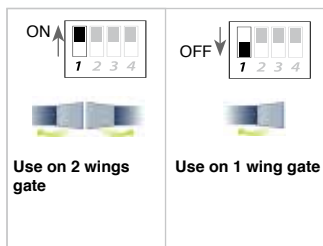


RX (photocell model 7120 receiver)

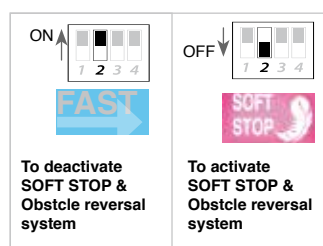


DEEP SWITCHES
see next page for detailed instructions

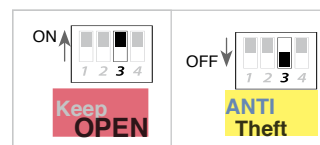
switch 1 :



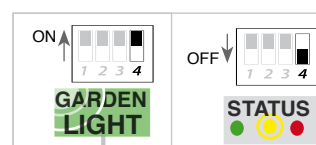
switch 2 :



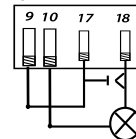
switch 3 :



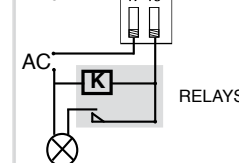
switch 4 :



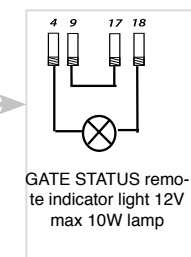
A) Garden courtesy timerized light 12V max 10W



B) Garden courtesy timerized light powered by 230V /110V

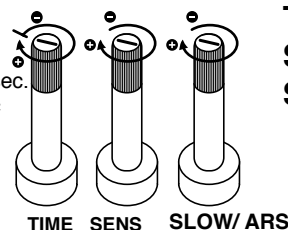


GATE STATUS remote indicator light 12V max 10W lamp



0= step
by step

max100 sec.
automatic
closure

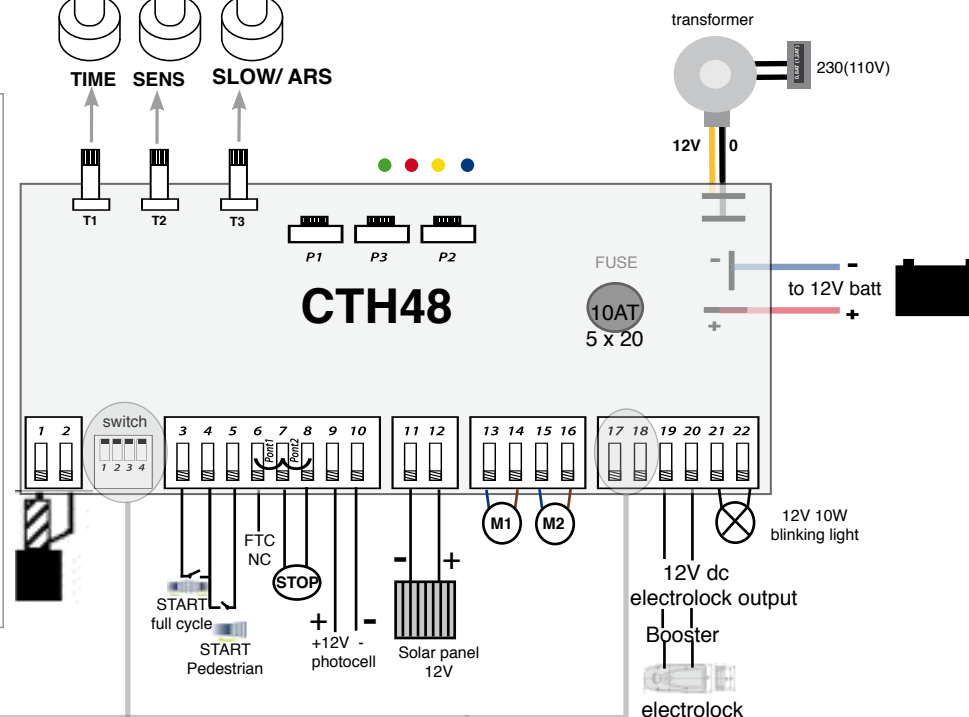


WARNING: start installation with potentiometers positioned as follows:

TIME: rotated anticlockwise

SENS: rotated clockwise

SLOW: rotated anticlockwise



	<p>SWITCH 1 on ON = use on single wing gate and connect the motor as M1</p>
	<p>SWITCH 1 on OFF = use on double wing gate</p>
	<p>SWITCH 2 on ON Deactivate SOFT STOP & Obstacle reversal system. The opener will work at high speed only and will stop if an obstacle is detected</p>
	<p>SWITCH 2 on OFF Activate SOFT STOP. The opener will start at high speed and then slow down the motion. During the high speed phase it will reverse the movement in case of obstacle detection. During the slow speed phase it will stop in case of obstacle detection. The starting point of the slow speed phase can be adjusted by potentiometer T3; turn T3 clockwise to delay (postpone) the slow speed phase.</p>
	<p>SWITCH 3 on ON only if combined with automatic closure (potentiometer T1 must have been turned clockwise to activate the automatic closure function) will enable:</p> <ul style="list-style-type: none"> - any impulse/ command (by remote control or wired keyswitch) during the automatic closing operation, will re-open of the gate - any impulse/ command (by remote control or wired keyswitch) during the timerized pause time (while gate is open), will increase the dwell time for a time equivalent to that programmed. - maintaining closed the "START" NO contact (for example by connecting a braker), the gate will stay open any command
	<p>SWITCH 3 on OFF, only if combined with automatic closure (potentiometer T1 must have been turned clockwise to activate the automatic closure function) will enable activates the SEMI-AUTOMATIC MODE (or also called ANTI-THIEF MODE) The Opener will accept impulses (by remote control or wired keyswitch) during both opening and dwell pause phase, and produces the sequence: STOP-REVERSE OPERATION (also called SEMI-AUTOMATIC MODE)</p>
	<div data-bbox="1153 997 1489 1173"> <p>SWITCH 4 on ON : active courtesy light / garden light lighting time 20sec.</p> <p>A1) NO dry contact becomes NC to activate a small 12V bulb max.10W</p> <p>B1)a relay for any lighting system of higher power. 12V 10W max output terminals 17 -18</p> </div> <div data-bbox="1489 997 2215 1173"> <p>B1) Garden Light powered by 220/110V /110V</p> </div>
	<div data-bbox="1153 1173 1489 1560"> <p>SWITCH 4 on OFF ***activate the remote indication of the gate status .</p> <p>A2) by wiring a LED lamp for example, you can remotely monitor the gate status: open = light on, slow flashing = opening, quick flashing = closing; off = gate closed. Output 12V max 10W lamp to be connected to terminals 17 -18</p> <p>remote gate status signal 12V max 10W lamp</p> </div> <div data-bbox="1489 1173 2215 1560"> <p>B2) ONLY 3 wires to get remote gate status signal and a wired command to keep the gate open</p> <p>switch Keep the gate open START remote gate status signal 12V max 10W lamp</p> </div>

ATTENTION: PHOTOCELLS ON CTH48

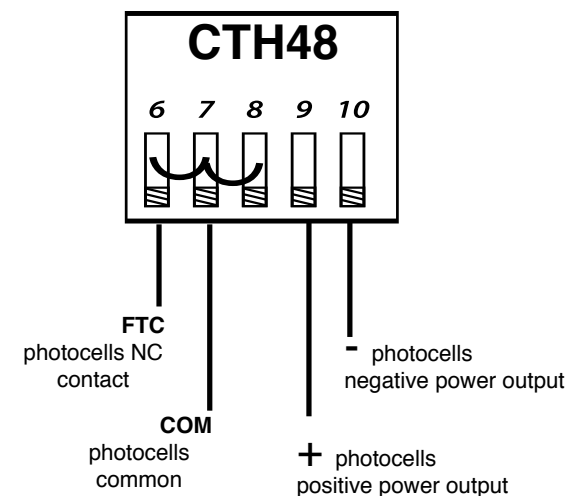
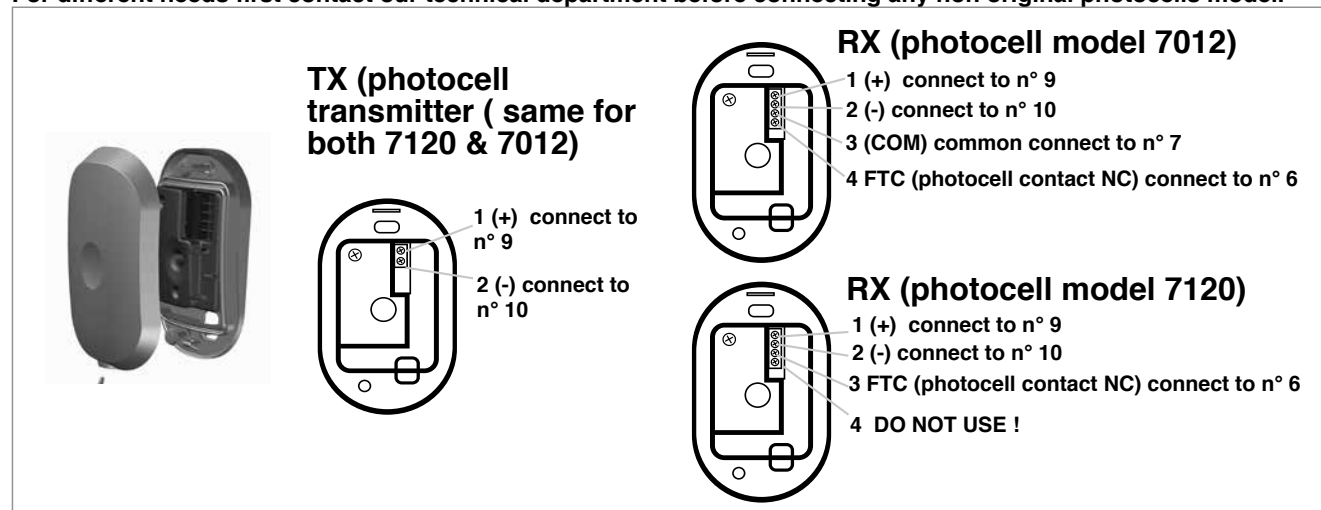
It is strictly recommended to use original DUCATI photocells only.

Use only low consumption photocells model **7120** in case of solar panel power supply. no other model is compatible.

It is recommended to use photocells model DUCATI 7012 in case of standard supply by 230/110 V

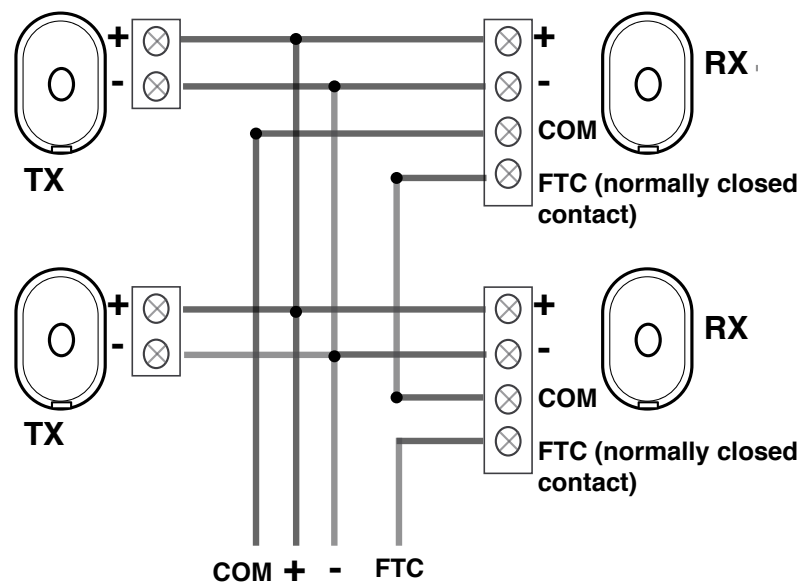
For different needs first contact our technical department before connecting any non original photocells model.

Attention: If photocells are connected take out the photocells bridge between connectors 6 & 7



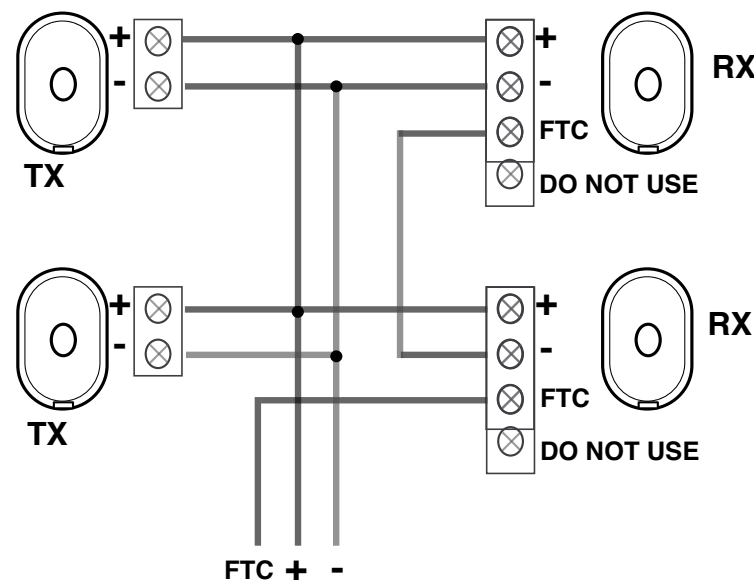
PHOTOCELLS MODEL 7012 (AC/DC 12V/24V):

how to connect double pair of photocells:



LOW CONSUMPTION PHOTOCELLS MODEL 7120: (DC 12V/24V)

how to connect double pair of photocells:



CTH48 featuring **DUCOSOL** system

Connections and adjustments:

ATTENTION ! all settings have to be made with gate in closed position

ATTENTION ! in case of use with power from photovoltaic panel use low consumption photocells mod. 7120 only!

CONNECTORS:

- 1/2 antenna / sock
- 3/4 START NO complete cycle
- 4/5 START NO pedestrian opening
- 6 Photocell NC contact (FTC) to be connected to terminal 3 of the photocell 7120 and / or 7012
- 7 Photocell common contact (COM) to be connected to terminal 4 of the photocell 7012. In case of use by 230V power and use of the photocell model 7120 is not used
- 7/8 NC Contact for safety/emergency STOP (WARNING: if the contact is not hold closed (by the bridge or by a NC switch button the gate will not operate as considering it an EMERGENCY STOP)
- 9 + power photocell positive
- 10 - power photocell negative
- 11 - negative solar panel
- 12 + positive solar panel
- 13/14 blue/brown cable motore M1
- 15/16 blue/brown cable motore M2
- 17/18 2 possible function can be settled:
 - A) with switch No. 4 in the "ON" position, connectors n°17/18 become output for garden/courtesy light
 - B) with switch No. 4 in the "OFF" position connectors n°17/18 become output for gate status light indicator.
- Connect one bulb 12V 10W max.
- light on indicates the gate is open
- light off indicates the gate is closed
- Slowly flashing light indicates the gate is opening
- Quick flashing light indicates the gate is closing
- 19/20 12V dc electrolock output (to be always used with a booster)
- 21/22 12V 10W max. blinking light

Photocells bridge: between connectors 6/7

Remove the bridge only when connecting the photocells.

Safety stop bridge: between terminals 7/8.

Remove the bridge only when connected to a NC switch for emergency STOP

DEEP SWITCHES

- 1: ON positioned= use on double wing gate
OFF positioned= use on single wing gate
- 2: ON positioned= fast speed only
OFF positioned= soft stop
- 3: ON positioned= by closing the "START" contact, it will keep the gate opened
- 4: ON positioned= connectors 17/18 becomes output for garden/courtesy light
OFF positioned= connectors 17/18 becomes output for gate status light indicator

USE ON SINGLE WING GATE

Connect the motor as M1

LED LIGHTS

Red LED:

- indicate the procedure to memorize/delete remote controls codes
- while gate is open: it blinks if the automatic closure has been activated
- while gate is open: it stays steady if the "step by step" mode is activated
- flashes if voltage is lower than 10.5V when powered by battery

Green LED

- if steady on = 230/110V powered
- if flashes slowly = battery powered

Yellow LED

- flashes if voltage is lower than 11,5V

Blue LED

Switches on during slow motion phase

indicates leaf phase shift procedure in closing:

- get's on by pushing P3,
- The blue LED switches on by pressing P3 indicates decrease/increases of the phase shift (0.5sec. every pulse).

POTENTIOMETERS

WORKING MODE: STEP BY STEP or AUTOMATIC

Trimmer 1 (TIME)= potentiometer to set the "step by step" mode of use or automatic closure

The potentiometer completely turned counterclockwise(position = 0) to use the standard setting "step by step" mode of use. with this setting a pulse controls the opening and a second impulse closes the gate. By rotating the potentiometer clockwise, you will set the automatic closure function. Turning the knob increases the time. Maximum pause time = 100 seconds with potentiometer fully clockwise.

MOTOR SENSITIVITY ON OBSTACLE DETECTION ADJUSTMENT

Trimmer 2 (SENS) = Adjust the level of sensitivity in the event of impact on an obstacle during the slow speed phase (SOFT STOP).

trimmer completely rotated counterclockwise = high level of sensitivity in case of impact on obstacle.

Turning the trimmer clockwise decreases sensitivity.

It is recommended to reduce the sensitivity in the presence of wind.

SOFT STOP / ASR auto reversal system ADJUSTMENT

Trimmer 3 (SLOW) = Set the start time of the deceleration phase (SOFT STOP) and the point where auto reversal system turns to stop function.

Turn the trimmer clockwise to increase the duration of the race at the standard speed (thus to delay the start of the slow speed) Warning: during the first phase the gate will reverse movement if detects an obstacle, while in the second phase will stop. In case the gate inverse when reaching the limit stops, you have to rotate potentiometer anticlockwise.

PUSH BUTTONS P1; P2; P3

P1 = FULL CYCLE push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set complete opening cycles. Red LED visual indicator.

P2 = PEDESTRIAN ACCESS push button to store or cancel the radio transmitters codes on the electronic board. This button is used to set pedestrian opening cycles (partially activates only the door corresponding to the motor M1 only). Visual indicator: red LED visual indicator.+ yellow LED, then only red LED.

P3 =LEAF PHASE DISPLACEMENT push button to adjust the time lag delay displacement between M1 and M2.

HOW TO MEMORIZE/ DELETE REMOTE CONTROL CODE IN THE ELECTRONIC BOARD (see also remote control chapter)

Remote controls setting: to synchronize a remote control channel:

On the main board Press P1 to memorize a remote control Channel for complete opening cycle (or press P2 for pedestrian opening cycle).

As the red LED turns on, push the selected radio remote control button. After the red LED blinks, wait until the red LED turns off. Operation completed.

Maximal storage capacity: 20 channels

To delete the stored channels press P1 for about 30 sec. until the red LED turns off. All remote control codes will be deleted.

LEAF PHASE DISPLACEMENT

The displacement between wings is automatically settled. In opening cycle, M2 follows M1 after about 3 sec. and vice versa during closing. In case the opening angle of the 2 wings is different (for. example if one wing opens 90° and the second wing opens 110°) it can be required a leaf phase adjustment to avoid the Leafs overlap during closure.

How to adjust the displacement time between the 2 wings:

P3 =push button to adjust the time lag delay displacement between M1 and M2.

M1 = motor on wing gate that opens first

M2 = motor on wing gate that opens as second one.

To change the time lag:

- Press P3,
- the blue LED switches on
- Within 5 seconds, press P1 to reduce the time lag or P2 to increase the time lag

Pressing on P1 the green LED switches on. Pressing P2 LED the yellow LED switches on. Each pulse corresponds to a variation of 0.5 seconds. If the red LED lights, it means that it has exceeded the limit.

Wait 5 seconds without pressing any key to confirm the choice.

Warning: the phase shift programmed is valid for the closing operation only, while the phase shift in the opening is determined by the software and is not editable.

SOLAR PANEL BACK-UP BATTERY POWER SUPPLY

CTH48 do not requires any additional module to manage a back-up battery or solar panel power supply.

For autonomous use in case of power failure - black-out connect directly to the board the back-up battery 12V 7A is recommended and guarantees about days of autonomous use. battery Connecting cables are ready on board. respect the polarity. red cable = positive; blue or black cable = negative)

For 100% autonomous use by solar panel power supply connect a 12V 7A battery and a solar panel 10W 12V (if extra autonomy is required connect a 12V 12A battery with a 12V 20W solar panel)

Respect the polarity. terminal 11= negative; terminal 12 = positive. The solar panel must be positioned facing South (also see solar module chapter)

The herunder table shows the autonomous use guaranteed in worst winter weather by use of a 12V 10W standard solar module & 12V 7A battery. the autonomy capacity highly increase by use of a 12V 12A battery combined with a 20W 12V solar module (this version is recommended in case of condominium use or in case of double par of photocells 7120 are installed)

control board consumption table	MOTOR	stand-by consumption/ (A/h)	daily stand-by consumption (A)	Full cycle (open + close) consumption (A)	hypothesis: daily full cycles	total daily consumption (A)	10W solar panel average-recharge capacity (A/h)	hypotheses: daylight hours daily in the worst conditions	total daily recharge capacity (A)	energy surplus accumulated and not used during the day (A)
electronic board CTH44 or CTH48	1 wing gate	0,007	0,16	0,012	60	0,88	0,3	5	1,5	+ 0,62
	2 wings gate			0,024	50	1,24				+ 0,26

DUCATI's rolling coded remote controls: Pult 6203R; 6203P; 6204

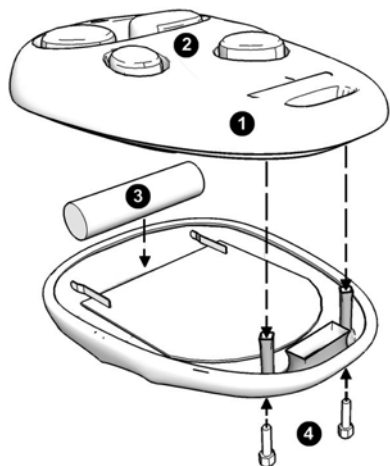
The DUCATI radio rolling coded transmitters, featuring a unique "rolling code" (billions of continuously changing combinations) radio protocol ensure maximum protection against radio interference.

Frequency: 433,92MHz

Each transmitter button is factory programmed with a unique code

Each button can be used to control a different DUCATI rolling coded gate, garage door opener or parking post.

By adding an external DUCATI rolling coded radio receiver (Rixi 6040 or 6043 with display) it is also possible to control other types of devices of any type and mark by a DUCATI rolling coded remote control



■ Remote control PULT 6204
powered by one 27A 12V battery

To operate your "DUCATI" opener with your DUCATI remote control you must memorize the remote control code on the electronic board of your opener.
WARNING: Operate adjustments and settings only with garage door or gate in closed position.

A) To memorize the remote control code inside the electronic panel of the opener:

The door must be closed and idle.

- Press button P1 on the electronic board. The red LED switches on.

- Release button P1 and immediately press on the buttons of the remote control that you wish to use to operate the device. Hold the remote button pressed for about 4 sec. - the LED light on the electronic board will quickly blink to show the procedure has been completed.

- Press again the memorized remote control button, the opener will start an maneuver

Warning: The memory of the controller can store up to 10-20 codes depending on the model (check the capacity of your memory card. If you need a larger number of remote controls is available an optional external receiver (RIXI6040 o RIXI 6043)

B) To erase the codes from the control board:

To deactivate any unwanted remote, erase its memory from the electronic board of your opener as following (all remote control codes memorized will be deleted):

- The door must be closed and idle.

- Press button P1 for about 20 sec. until the red LED blinks

- Release P1.

- All remote control codes have been deleted. - Reprogram each remote you wish to use following procedure on point A)

Tutti i codici sono stati cancellati. Per reinserire nuovamente i codici del telecomando seguire le operazioni del punto A da 1 a 4.

****IMPORTANT NOTE:** Ducati 12 bit Radio remote controls model 6203, are 2 channels 12 bit coded remote controls compatible to 12 bit coded versions devices only. Each button can be used to control a different DUCATI rolling coded gate, garage door opener and. The coded transmitted is a simple 12 bit binary fix code. 6203 12 bit coded remote controls are compatible only with 12 bit coded electronic boards (12 bit coded electronic board suffix is CTR and not CTH as per rolling coded electronic boards).

The 12 bit coded remote control model 6203 is very similar to the rolling coded ones, but has transparent push buttons (sometimes also transparent case)

while rolling coded radio 6203R is dark blue with dark blue buttons and rolling coded model Model 6203P (Enhanced Model 100m) is dark blue with red buttons

Each remotes has a standard 12 bit BINARY code.

STANDARD CODE MEMORIZED ON CHANNEL 1 = push button NAMED "OFF" = ON; OFF;ON;OFF;ON;OFF;ON;OFF;ON, OFF;OFF;ON

STANDARD CODE MEMORIZED ON CHANNEL 2 = push button NAMED "ON" = OFF; OFF;ON;OFF;ON;OFF;ON;OFF;ON, OFF;OFF;OFF

A personal code must be programmed to avoid not authorized command by other 6203 remotes.

To program a personal code IN YOUR 12 BIT REMOTE CONTROL follow these steps:

1. Simultaneously press the ON and OFF the remote control for about 10 seconds until the LED lights up steady.

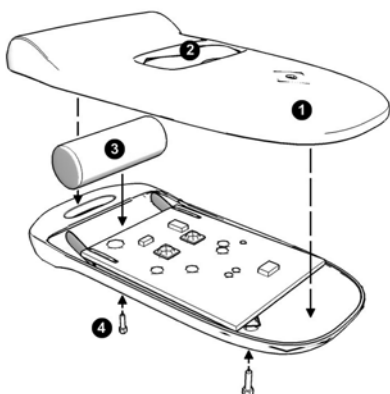
From now on the remote control it is in the programming function; release the buttons, the LED turns off.

2. Press for about 1-2 seconds the channel you wish to use to command your device (ON button = channel 1 ; OFF button = channel 2) ,the LED lights on for about one second.

3. Press the buttons (OFF) (ON) making up your string coding to 12 pulses (it is recommended to previously mark your personal code to be sure have it saved) after each pulse wait until the LED switches off.

4. On the thirteenth pulse, the remote control will flash to indicate that the programming has been accepted.

To store or delete the electronic card (note: only if series CTR) code, do the above procedure A) as for the rolling coded remotes.



■ Remote control PULT 6203 Roll
■ Remote control PULT 6203 P (100m)
(Remote control 12bit PULT 6203**)
Powered by one 12V type A23-5mA battery



GEMINI 6205

With this 4-channel radio remote control you can copy and duplicate any fixed code transmitters working on 433 MHz frequency. Each button can duplicate a different remote control of any brand.

A) EREASE TEH MEMORY

(procedure needed also in case of new transmitters)

A1-simultaneously push and hold pushed buttons 3 & 4.

The LED will flash 3 times

A2- Continuing to hold pushed button 3; release button 4

A3- while holding down button 3, press 3 times consecutively button 4

The LED flashes to indicate that the delating procedure was successful.

A4- Release all push buttons

To confirm that the deletion procedure was successful, you can check that by pressing any button for one second LED does not light.

B) DUPLICATE AN EXISTING FIX CODE REMOTE CONTROL

B1- place the remote control near the existing remote control copier, as shown in picture n°2

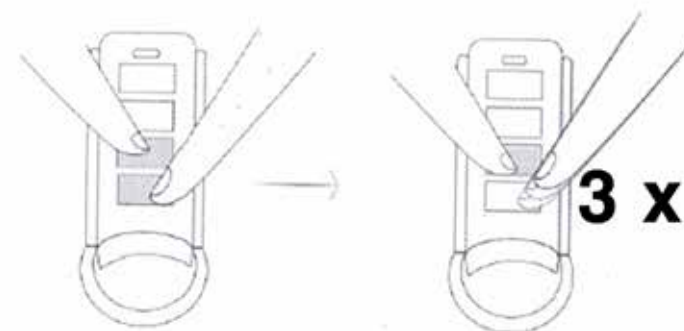
B2- Press and keep pushed the push button on the original fix code remote control that you wish to duplicate.

B3- Press and keep pushed the choosen button on GEMINI 6205, after two seconds the LED light quickly flashes 3 times to indicate it's entered in learning mode. Hold down the buttons until the LED blinks slowly to indicate that the radio control has been duplicated

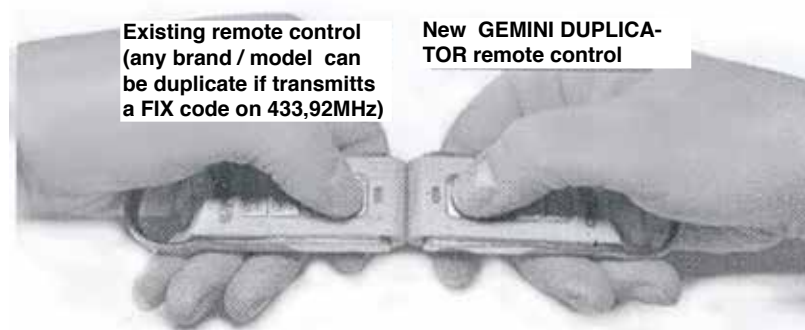
B4- Release all buttons. The procedure has been completed.

Caution: If the copying procedure does not conclude correctly repeat the procedure from step 1.

pic.1



pic.2



SW6500/TASTY 6500 outdoor use DUCATI RADIO ROLLING CODED KEYPAD works on 433,92MHz frequency

By digiting a 4 digit codes + ENTER the keypad will transmit a rolling coded radio signal to command your door opener.

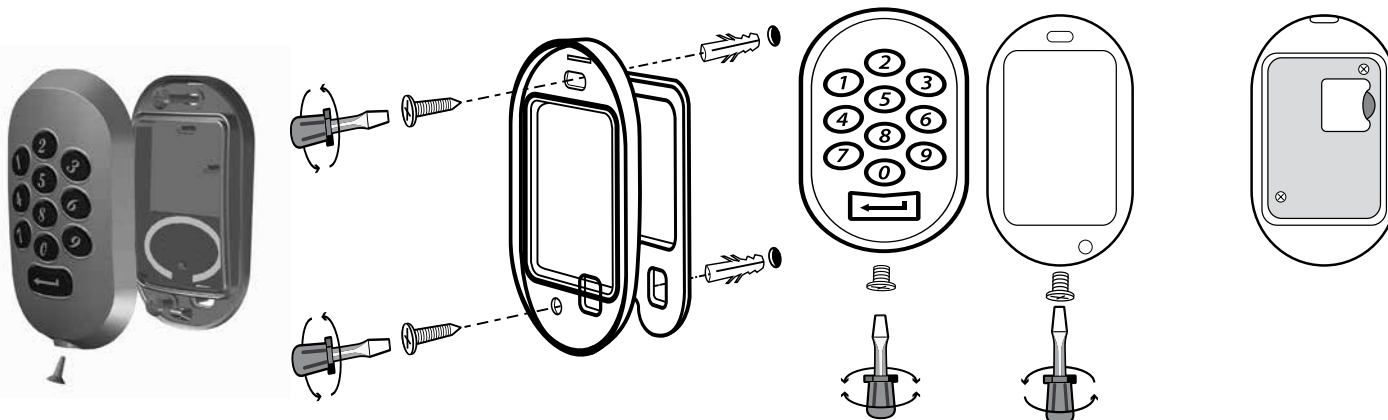
Fix the keypad on wall or pillar. It's recommended to place where it can be protected from rain even if it's suitable for outdoor use. It must be installed at a maximal distance of 10m from the electronic board of the opener. The keypad is supplied with a standard code =1111.

It is recommended to replace the standard code with a personal secret 4 digit code before to store the keypad in the electronic board's memory. it is possible to memorize max. 10 different personal code.

The Keypad are 1 channels only. Any of the memorized personal coded will all be used to transmit on the same channel (each single channel keypad can command 1 opener only)

Warning : it is extremely important to write down each personal code. because if it is forgotten the keypad could not be resetted and it will be unusefull.

Warning : in case of digiting a faulty code for 3 times the keypad will turn into in stand-by for 10 minutes . Durring this stand-by time it wont accept any further digiting. Wait 10 minutes befor to try again to insert the correct code.



1) How to replace the standard code with a personalized 4 digit code (first operation)

digit the standard code 1111 + 3 + the 4 digit of the choosen personal code + ENTER. The keypad will make a BEEP to confirm that standard code has been replaced. ATTENTION: it is extremely important to write down the personal code. In case it is forgotten the keypad cannot be resetted by the customer and it will be unusefull. If this occurs it must be shipped back to the manufacturer to be resetted. Costs will be at the charge of user.

A) To memorize the Keypad code in the electronic panel of the opener:

The door must be closed and idle.

- Press button P1 on the electronic board. The red LED switches on.

- Release button P1 and immediately on the keyswitch positioned by the electronic board digit the 4 personal code + ENTER (hold enter for about 1,5sec. at least) until the keypad confirms with a "beep". Hold the red LED light on the electronic board will quickly blink to show the procedure has been completed.

Warning: The memory of the electronic board of your opener can store up to 10-20 codes depending on the model (check the capacity of your memory card). If you need a larger number of remote controls is available an optional external receiver (RIX6040 o RIXI 6043)

To operate your gate you must digit on your KEYPAD your personal code + ENTER (hold enter for about 1,5sec. at least)

2) How to replace a personal code with a new personal code:

digit the personal code you wish to be replaced + 4 + the four digits of the new personal code + ENTER.

The keypad will make a BEEP to confirm that the personal code has been replaced.

3) HOW to add a new 4 digit code (without delating the previously setted 4 digit codes):

digit one of the previously setted 4 digit codes+ 3 + the new 4 digit code + ENTER The keypad will make a BEEP to confirm

4) How to delate a specic 4-digit code from the keypad

digit the code you want to delate + 5 + ENTER, the LED on the keypad will start blinking, press again on ENTER (within 1,5sec.) and hold pressed until the LED blinks, then release Enter The keypad will make a BEEP to confirm

5) How to delate all the codes setted in the keypad (all codes will be delated)

digit one of the previously setted 4 digit codes+ 6 + ENTER. The LED on the keypad will start blinking, press again on ENTER (within 1,5sec.) and hold pressed until the LED blinks, then release Enter .The keypad will make a BEEP to confirm the procedure has been compleeted.

WARNING: the Keypad will go back to the standard code =1111 but with this standard code it will not be possible to command anymore the opener. It will be necessary to re-set a new personalized code following instructions of point 1 above.

B) To erase your KEYPAD from the control board of your opener:

To deactivate any unwanted remote, erase its memory from the electronic board of your opener as following (all remote control codes memorized will be delated):

- The door must be closed and idle.

- Press button P1 for about 20 sec. until the red LED blinks

- Release P1.

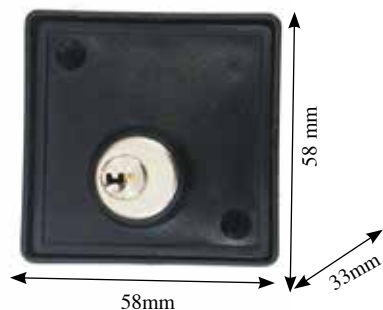
- All remote control codes have been delated.- Reprogram each remote you wish to use following procedure on point A)

■ Wired Key Switches: KEY 5000 / KEY 5005 / KEY 5005 INOX

Connect connectors 1 & 2 to the START normally open contact of any DUCATI electronic board to command a full cycle maneuver (both wings will operate a full cycle, or in case of single wing gate use, the single gate will operate a full cycle)

Connect connectors 1 & 2 to the PEDESTRIAN START normally open contact of a DUCATI electronic board to command a partial pedestrian maneuver (only 1 wing will partially open to permit pedestrian access only)
In case you want to connect more than one key switch or any other NO Switch or Braker make a parallel connection. For extra safety it is advisable to wall up the connection cable.

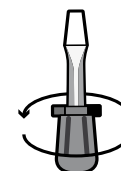
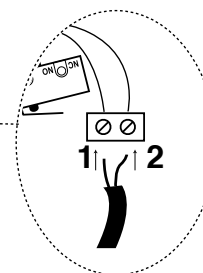
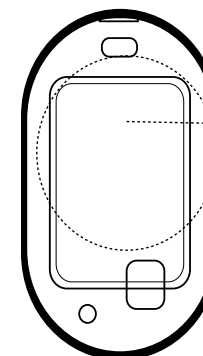
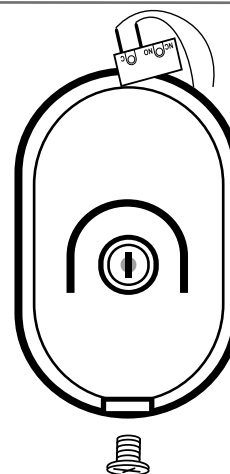
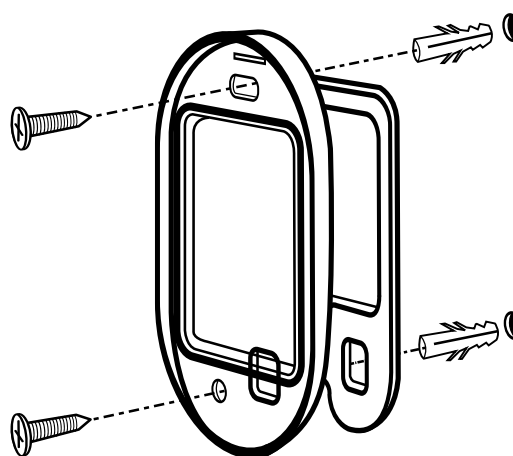
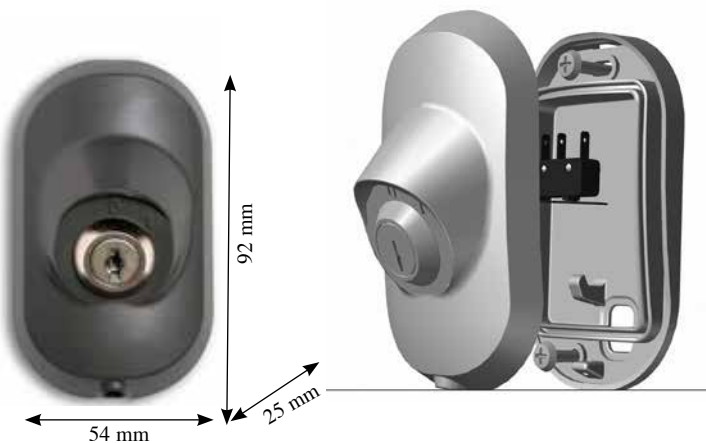
■ KEY 5005



■ KEY 5005 INOX



■ KEY 5000





The outdoor use 4-channel DUCATI rolling coded radio receiver allows you to control up to 4 automatic devices of any type by means of any ducati rolling coded remote controls.

N° of channels: 4
 Each channel storage capacity: max. 25 codes
 Radio frequency 433,92 MHz
 Contact rating relay: 1A /30V
 Working temperature: -10°C / + 60°C
 Irradiation of antenna: in compliance with EU Norms
 Cc

The radioreceiver can be powered by the 12V power outputs of the electronic board of a Ducati device (you can use the photocells positive + and negative- outputs to power the radio receiver).

The board has 4 channels: CH1; CH2; CH3; CH4. Each channel can be used to control a different function of the same gate opener or different devices. Connect the output terminals of the channel on the radio receiver to the input terminals of the electronic board of the device you wish to control.

Example: if you want to use Channel 1 of the radio receiver to command the full cycle opening of your gate opener: connect terminals of CH1 to the START contact of the main board of your gate opener.

If you wish to use Channel 2 to command the pedestrian opening of your gate opener, connect terminals CH2 to the "PEDESTRIAN START" terminals of your gate opener. If you wish to control your garage door opener by Channel 3 connect terminald CH3 to the start terminals of your garage door opener. You can also connect the channels to a non DUCATI device. This way you will be able to operate any device with the same Ducati rolling code remote control. This will not prevent the use of the originals remote controls of other devices. Ducati radio receiver will work together to theoriginal radio receiver of the device. You will have to memorize the push buttons of your remote controls in the corresponding channel of your external receiver.

SWITCHES

Used to determine if the channel is used with monostable contact (start impulse) or bistable (switch that maintains closed or open the circuit)ogni switch Each switch is used for the correspondent channel example: switch n° 1 is used for channel CH1;

To sycronize/ store the remote controls buttons in the radio receiver:

On the radio receiver push the button corresponding to the channel you wish to use the remotes with

CH1 = channel 1 use P1 to store the radio remote control push button

CH2 = channel 2 use P2 to store the radio remote control push button

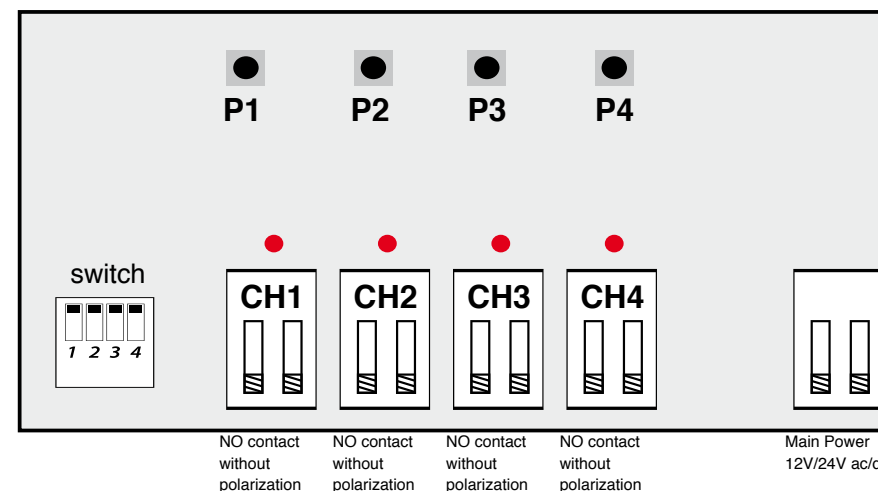
CH3 = channel 3 use P3 to store the radio remote control push button

CH4 = channel 4 use P4 to store the radio remote control push button

The red LED light corresponding to the choosen channel switches on. Push the button of your remote control that you wish to use.The red LED light blinks to confirm that the operation was completed successfully.

To delate the stored remote controls:

On the radio receiver, push and hold pushed the button corresponding to the selected channel. After about 30 sec the LED blinks to conirm all remote control codes on that channel have been delated.





The 3-channel radio receiver allows you to control up to 3 automatic devices with DUCATI ROLLING CODE remote controls.

Each stored radio code is identified in a specific position number displayed on the display.

Channel CH3 allows also to set a timerized command (0- 6 minutes)

Radio transmission protocol: Ducati rolling code

MAx. storage capacity: 100 radio codes.

monostable / timerized function 12/24V ac/dc

Frequency: 433,92 MHz

Relay contact capacity: 1A /30V

Working temperature: -10°C / + 60°C

Irradiation of antenna: in compliance with CE norma

Tensione di alimentazione 12/24 V ac/dc

Stand-by consumption: 38 mA

POWER SUPPLY: The radio receiver can be powered from the 12V or 24V power output of the device's electronic board. There are no polarity to be respected.

Before activation: Place the SWITCH ON to turn on the display.

The receiver performs a testing procedure. With completely empty memory the display will show: CC on the display. Wait until the display gets off.

Caution: to activate the display place the switch on ON position. Note: the displays will light up by pressing one of the programming buttons or upon receipt of a radio signal previously stored.

With switch on 1 = OFF the displays are always off

1. How to memorize a remote control code (button)

- Push P1, the display switches on.
 - by pressing push P6 you can choose on which channel you will store the remote control button
 - Push the remote control button you wish to memorize. If the procedure is completed correctly the A display will blink and shows the channel on which the remote control button has been stored. The B display will show the position number where the remote control button has been stored. Example: 2 03 (channel 2, position 3)
- Simultaneously the red LED lights on. Then the display turns off.

2. How to delete a specific previously memorized radio remote code (button)

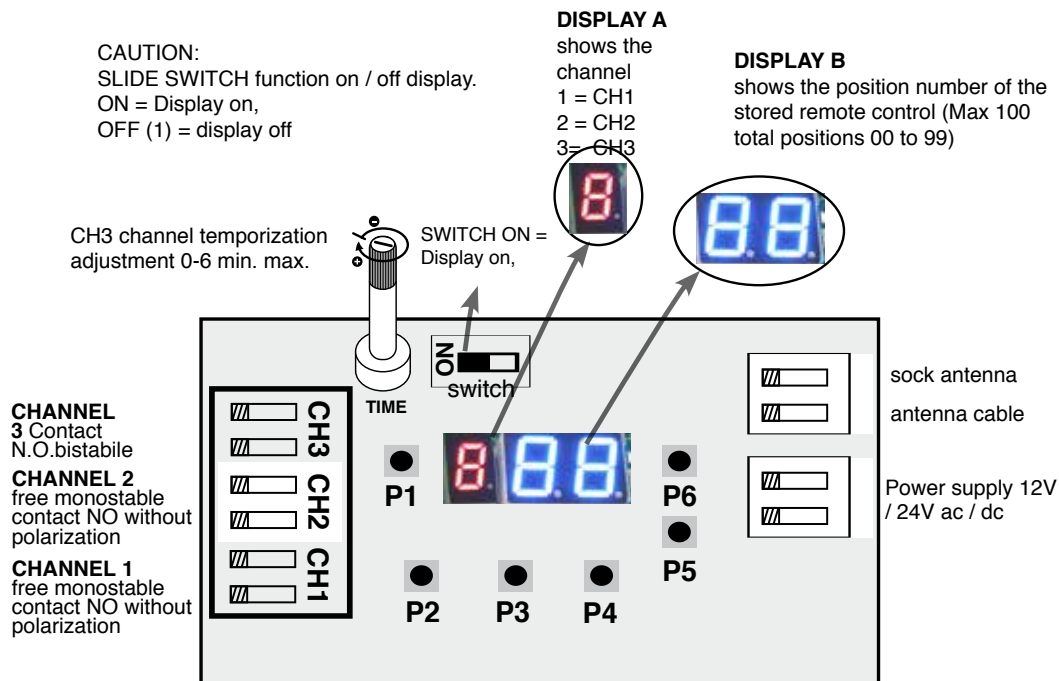
- Press P2. The A display will show "P", the B display will show: - -. release P2
- displays will now show: P 00
- Identify the position number you want to delete by pressing push button P6 (increase) or P5 (decrease)
- Push again P2 and hold it pushed until the red LED light switches on. The position number which is being deleted is blinking on the display. Once the code is deleted the display switches off. Release P2.

3. How to delete all stored codes

- Push and hold pushed P3 3 until the display shows: CC.
- release P3. The process continues until the total erasure of the memory and can not be interrupted.

4. How to check how many positions are still available to memorize new codes:

- Press P4. the display will show the number of free positions
- release P4



■ Photocells are an active security optional device active during the closing phase of the gate .It prevents that the gate gets in contact with an obstacle that is trapassing the infrared light transmitted from the transmitter photocell to the receiver photocell.

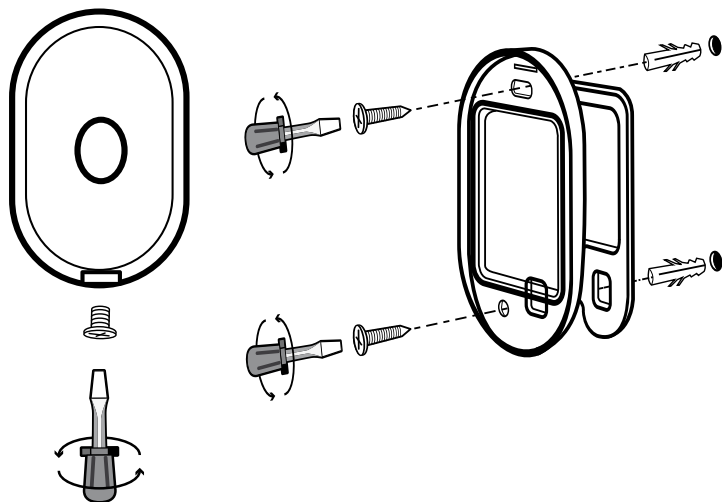
It is advisable to mount the photocells at a height from the ground between 40 and 100 cm. Photocells can be installed directly on the pillar (without embedding) or on special support columns.

The obstacle is detected only if it is located between the infrared light beam between the two photocells. The device is composed of a transmitter TX and receiver RX. The transmitter TX emits a modulated infrared light that is detected by the receiver RX, when this beam of light (invisible) is interrupted by the presence of an obstacle, a signal is sent to the electronic board and the doors reverse the direction of travel (this happens only in the closing phase.) Do not install the photocells at a distance higher than 10m.

Model SW7012 or LASER 7012: pair of niversal photocells u12 / 24V ac / dc

Models SW7120 or LASER 7120: pair of low consumption photocells. Special model recommended expecially if to be used on of solar powered openers (CTH44 & CTH48 control board)12 / 24V ac / dc

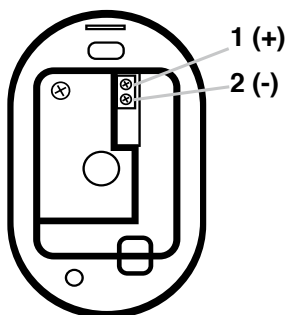
Unscrew the cover of the photocell to fix them to the pillar / column. It is mandatory to perfectly align the photocells.



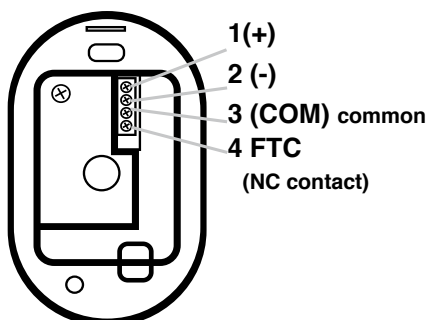
Attention: photocells model 7012 & 7120 are aesthetically identical.

They shall be identified and distinguished by the label affixed to the back of the device. Moreover, the model is also indicated on the printed circuit of the RX photocell. Caution: with CTH44 and CTH48 electronic boards powered by the solar panel is indispensable use of photocells model 7120 in order to contain the consumption of the system. It is advisable, in such cases, to install a single pair of photocells.

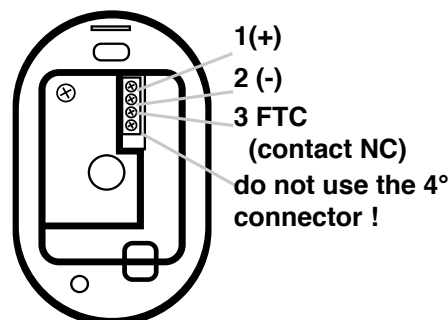
TX (same in photocell model 7012 & 7120)



RX (model 7012)



RX (model 7120)



■ Connectors on photocells 7012 & 7120

1 = + Positive power supply 12 / 24V AC / DC (for both models)

2 = - negative power supply 12 / 24V AC / DC (for both models)

connect to the related terminal of the DUCATI's opener electronic board

Photocell RX (receiver) models 7012 (universal photocells)

3 = common. connect to COM (common) terminal of the electronic board

4 = FTC normally closed photocell contact.

connect to the related terminal FTC of the DUCATI's opener electronic board

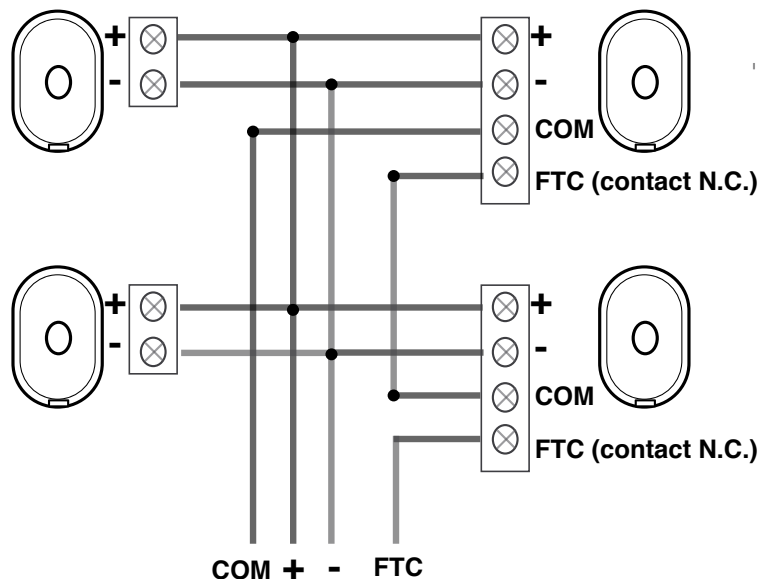
Photocell RX (receiver) models 7120

3 = Connect to the FTC normally closed (NC) terminal on the DUCATI's opener electronic board

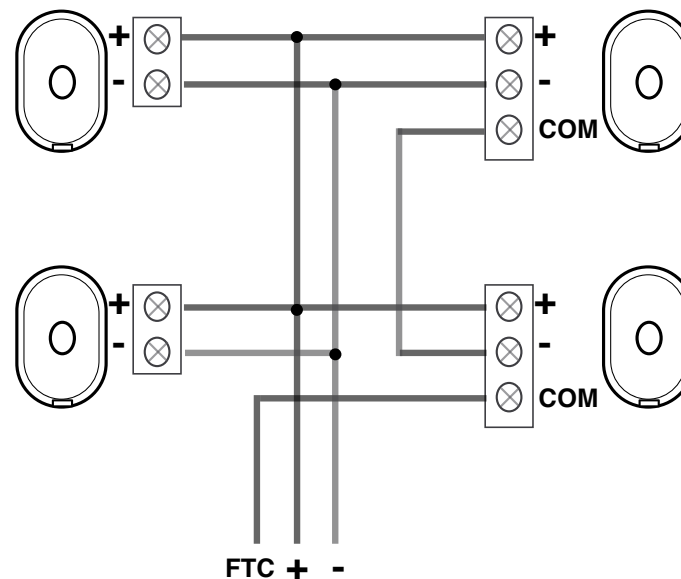
WARNING: Do not use the 4th down terminal on the photocell RX 7120

Warning: by connecting the photocells, the bridge that keeps closed the photocell contact must be eliminated.

How to connect more pairs of universal photocells model **7012**



How to connect more pairs of special low consumption photocells model **7120**



Model LASER 100: pair of photocells universal 12 / 24V ac / dc

Unscrew the cover of the photocell for fixing to the pillar / column. perfectly align the photocells.
Place the photocells at a maximum distance of 10m from each other.

Wiring:

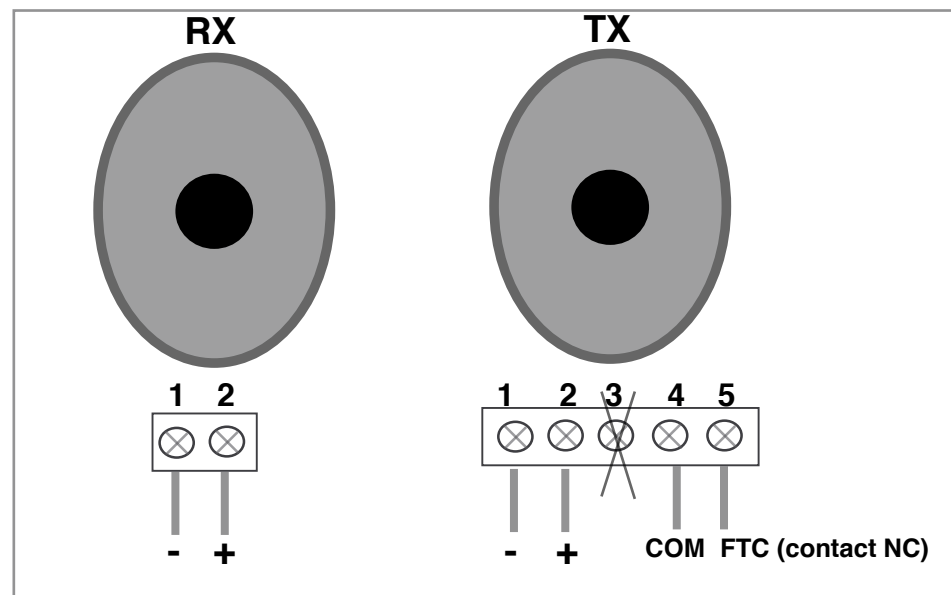
1 = - **negative power supply 12 / 24V AC / DC**

2 = + **Positive power supply 12 / 24V AC / DC**

3 = NO contact (not to be used on DUCATI's opener's electronic boards)

4 = **common**. connect to COM (common) terminal of the electronic board

5 = NC contact Connect to the FTC normally closed (NC) terminal on the DUCATI's opener electronic board



■ The flashing must be installed on the pillar / wall and be clearly visible from inside and outside the property.
in modo che sia perfettamente visibile dall'interno e dall'esterno della proprietà.

The blinking is slow in opening and faster during closing.

The installation of the flashing light is mandatory to ensure security on public transit area.

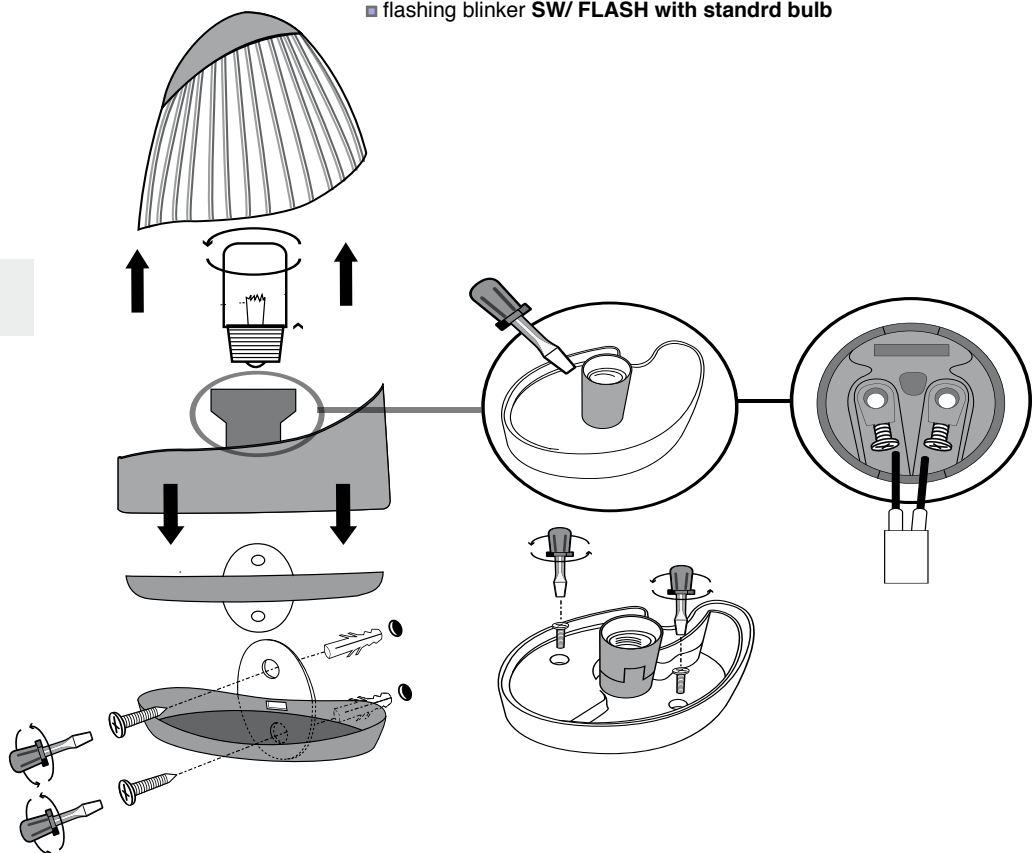
The flashing lights model: FLASH 7712; 7512, HC7500 / 12 use a 12V max 10W bulb

The flashing lights model: FLASH 7724; 7524 HC7500 / 24 use a light bulb max 10W 24V

External antennas can be added in case you need to deport the outside radio reception. Not recommended for use unless absolutely necessary given that they increase the risk of a brake circuit on the circuit board due to electrostatic discharges during thunderstorms.

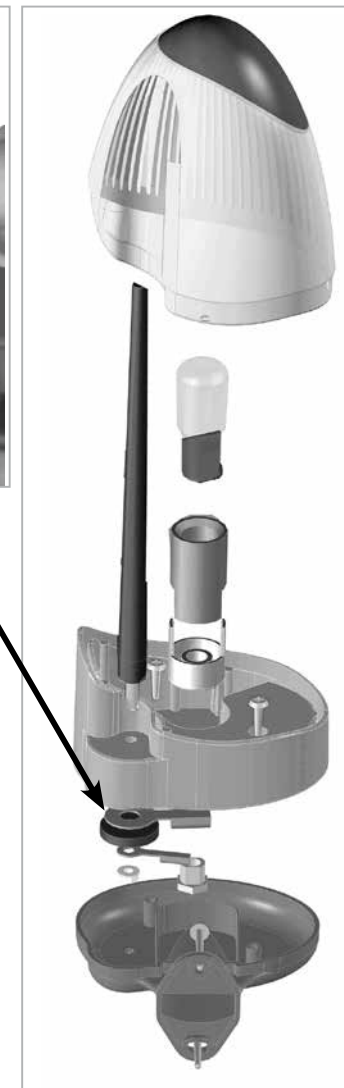
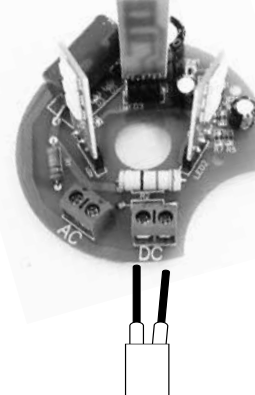
■ flashing light **SW/ FLASH & external antenna STILO**

■ flashing blinker **SW/ FLASH with standrd bulb**



■ flashing blinker **SW/ FLASH with LEDmodule ac dc 12/24V:**

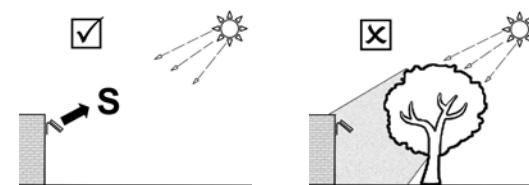
connect to Ducati opener board by using the DC connectos on LED light PCBw



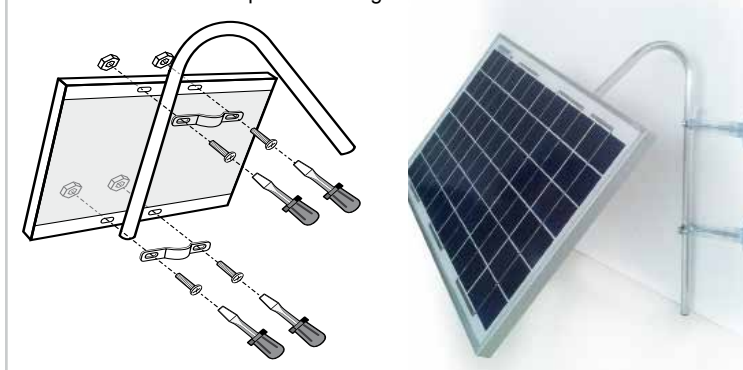
solar panel SOLAR 1010 (10W) / solar panel 1020 (20W)

Place the solar panel to a recommended maximum distance of 10 m from the control box. Fasten the panel to the wall with the supplied bracket. The solar panel should face SOUTH. Check that no obstacle creates shadow on the panel and that it is in full light. Connect the panel to the circuit board being careful to respect the polarity of the wiring.

Warning: in case of intensive use or to ensure greater autonomy in low light conditions it may be advised to use solar panel SOLAR1020 (20W) to be used by combining a minimum 12V 12A battery. The 12V battery 12A must be housed in an external box



SOLAR 101010W solar panel mounting bracket



Solar 1020 20W solar panel mounting bracket



control board consumption table	MOTOR	stand-by consumption/ (A/h)	daily stand-by consumption (A)	Full cycle (open + close) consumption (A)	hypothesis: daily full cycles	total daily consumption (A)	10W solar panel average-recharge capacity (A/h)	hypotheses: daylight hours daily in the worst conditions	total daily re-charge capacity (A)	energy surplus accumulated and not used during the day (A)
electronic board CTH44 or CTH48	1 wing gate	0,007	0,16	0,012	60	0,88	0,3	5	1,5	+ 0,62
	2 wings gate			0,024	50	1,24				+ 0,26

The table gives an estimation of autonomy in the worst light conditions (we calculated only 5 hours of daily light with a low brightness level).

This condition may correspond to the situation: winter with overcast / partly covered or veiled.















The table shows the maximum number of maneuvers, maintaining the same level of charge of the battery.






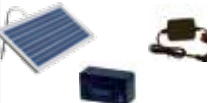




With summer weather and excellent exposure to light for more hours per day, the levels of autonomy increase exponentially.






With use of photocells and especially in the case of double pair of photocells SW7120 we recommend the use of a 20W panels combined with a 12A battery to ensure an even better energy autonomy.

NOTE: the solar panel 1020 combined 12V 12A battery has a charging capacity of about 1A / hour ,exponentially increasing the autonomy compared to a 10W panel 7A battery.

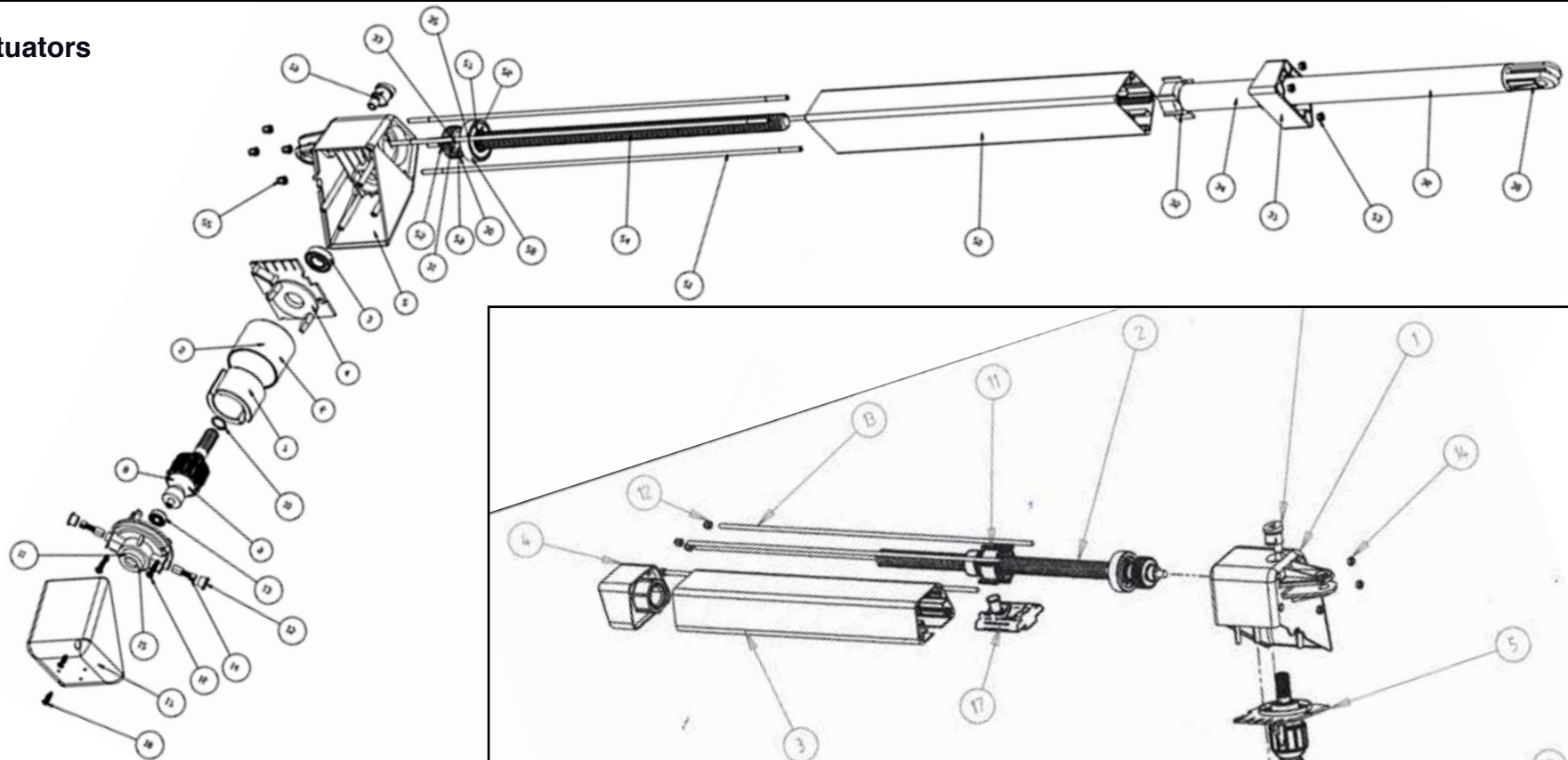
Caution: the use of a solar panel 20W combined to a 12V 7A battery is inadvisable because it would not exploit all the charge given by the panel.

Accessories: remote controls, radio receivers and other wired controls devices		
MODEL	PICTURE	DESCRIPTION
PULT 6203 12BIT		12 bit, fix coded, 2 channels remote control. 433,97 MHz
PULT 6203 R		Ducati radio rolling coded , 2 channels remote control 433,97 MHz
PULT 6203 P		Ducati radio rolling coded , 2 channels remote control 433,97 MHz. working distance : 100m
PULT 6204		Ducati radio rolling coded , 4 channels remote control 433,97 MHz
GEMINI 6205		Duplicator of any fix code remote contro transmitting at 433 MHz
RIXY 6040		4 channels Radio receiver. Ducati radio rolling coded. 433,97 MHz. storage capacity: max.100 codes (25 each channel) stable/ bistable
RIXY 6043		3 channels Radio receiver with display. Ducati radio rolling coded. 433,97 MHz. storage capacity: max.100 codes.1 channel with temporization 0-6 minutes. stable/bistable
STILO 6023		Universal Antenna 433,92MHz. fixing bracket & 5m cable included. +0,5Db
STILO 6025		Universal Antenna 433,92MHz. 5m cable included. +0,5Db to be directly fixed on FLASH blinkers
TASTY 6700		1 channel radio keypad .Ducati radio rolling coded , 433,97 MHz for outdoor use stainless stell case
TASTY 6704		4 channels radio keypad .Ducati radio rolling coded , 433,97 MHz for outdoor use stainless stell case
SW 6500		1 channel radio keypad .Ducati radio rolling coded , 433,97 MHz for outdoor use
SW 6504		4 channels radio keypad .Ducati radio rolling coded , 433,97 MHz for outdoor use
KEY 5000		key switch NO with 1 pair of keys
KEY 5001		key switch NO with 1 pair of keys
KEY 5005		key switch NO with 1 pair of keys
KEY 5005 INOX		key switch NO with 1 pair of keys stainless steel finishing

Accessories: Flashing lights, antenna , solar modules & batteries		
MODEL	PICTURE	DESCRIPTION
FLASH 7712		12V blinker with white dome and yellow bulb
FLASH 7724		24V blinker with white dome and yellow bulb
FLASH 7512		12V blinker with yellow dome and white bulb
FLASH 7524		12V blinker with yellow dome and white bulb
HC 7500/12		vintage design 12V blinker with yellow dome and white bulb
HC 7500/24		vintage design 24V blinker with yellow dome and white bulb
.../ LED		LED light module for FLASH flashing light
KB 9000		xenon lamp blinker
STILO 6023		Universal Antenna 433,92MHz. 5m cable included. +0,5Db to be directly fixed on FLASH blinkers
SOLAR SET 1010		SOLAR SET contents:: 1 x SOLAR1010 10W solar panel + 1x BAT1012 12V 7A battery+ 1 MPBAT battery charger with plug
SOLAR SET 1010		SOLAR SET contents:: 1 x SOLAR1020 20W solar panel + 1x BAT1212 12V12A battery+ 1 MPBAT battery charger with plug
SOLAR 1010		10W 12V solar panel with fixing bracket
SOLAR 1020		20W 12V solar panel with fixing bracket
SOLAR 2020		20W 24V solar panel with fixing bracket
BAT1212		12V 12Ah rechargeable battery. dimensions: 9 cm h x 15 cm x 10cm
BAT 1012		12V 7Ah rechargeable battery. dimensions: 9 cm h x 15 cm x 6,5cm
BAT 1012 SLIM		12V 5Ah rechargeable battery. dimensions: extra thin measures 9 cm h x 15 cm x 5cm
C/M/BAT		battery charger module for electronic board CTR42
MPBAT		12V 0,5A battery charger with cable and UE plug class A. polarized +/- terminals 6,3

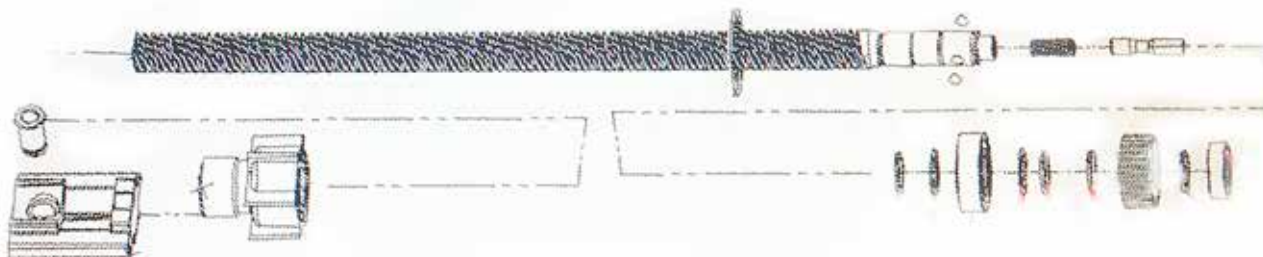
ACCESSORI : SAFETY DEVICES		
MODEL	PICTURE	DESCRIPTION
LASER 7120		Pair of low consumption photocells with stainless steel case. compatible with scontrol board CTH44 & CTH48. 12/24V a.c./d.c./NC
LASER 7012		Pair of universal photocells. 12/24V a.c./d.c./NC
LASER 100		Pair of universal photocells. 12/24V a.c./d.c./NC
SW 7120		Pair of low consumption photocells. compatible with scontrol board CTH44 & CTH48. 12/24V a.c./d.c./NC
SW 7012		Pair of universal photocells. 12/24V a.c./d.c./NC
KOL 600		pair of aluminium columns h60cm with fixing bracket (photocells are not included)
E-LOCK 1012		12/24V ac electrolock
Booster 1012		Booster for electrolock E-LOCK1012

telescopic actuators HC312 HC412








actuator HC418







actuator SW400
























Sper parts compatibles to all actuators




MODEL	PICTURE	DESCRIPTION
R70		pair of carbon brushes. compatible to all SW & HC actuators
R15		trilobed unlocking key. compatible to all SW & HC actuators
R14		release pawl. compatible to all SW & HC actuators
GIU0114		1,25 Z27 sinterized gear compatible to all SW & HC actuators
0138		1 m motor cable H05RNF for outdoor use with 2 faston . compatible to all SW & HC actuators

HC actuator's spare parts











R39		rotor for actuators HC418; HC312; HC412
R76		gearmotor for actuators HC418; HC312; HC412
R4		PA6 gearmotor housing (2 pcs: bottom and upper housing) for actuators HC418; HC312; HC412
R40		carbon brushes holder (carbon brushes are not included) for actuators HC418; HC312; HC412
R9		<div> <p> painted aluminium profile for actuators HC312 (2016 version is provided in black colour only whil previous versions where grey painted) </p> </div>
R9/418		<div> <p> painted aluminium profile for actuators HC418; HC412 (2016 version is provided in black colour only whil previous versions where grey painted) </p> </div>

MODEL	PICTURE	DESCRIPTION
R1		stainless steel tube with nut screw, and front fixing junction. for HC312
R1/400		stainless steel tube with nut screw, and front fixing junction. for HC412
R2		long screw with roll bearing & gear for actuator HC312
R2/400		long screw with roll bearing & gear for actuator HC412- HC418
SW010		nut screw with slide & front fixing pin. for HC418
R37		front cover for HC312 e HC412
R37		front cover for HC418
R11		pins and circuit clips for actuators HC418; HC312; HC412 (2 fixing pins + 4 circuit clips)
R8		Fixing brackets compatible with actuator HC312; HC412. The set contains 4 plates (for 2 actuators)
R8/818		Fixing brackets compatible with actuator HC418; The set contains 4 plates (for 2 actuators)

SW ACTUATOR'S SPARE PARTS		
MODEL	PICTURE	DESCRIPTION
SW101		ABS gearmotor cover for SW400 / SW400T
SW100		PA6 gearmotor housing for SW400 / SW400T
GIU110		carbon brushes holder (carbon brushes are not included) for SW400 / SW400T
R39SW		rotor for SW400 / SW400T
R76SW		12V gear for SW400 / SW400T
SW125		painted aluminium profile for SW400 & SW400T
SW114		front cover for SW400
SW124		front cover for SW400T
Sw110		nut screw with slide & front fixing pin. for Sw400
R2/400		long screw with roll bearing & gear
R1/400		stainless steel tube with nut screw, and front fixing junction. for SW400T

MODEL	PICTURE	DESCRIPTION
Sw105		pins and circuit clips for actuators Sw400 / SW400T (2 fixing pins + 4 circuit clips)
R8		fixing brackets compatible with actuator SW400T. The sets contents 4 plates (for 2 actuators)
R8/818		fixing brackets compatible with actuator SW400. The sets contents 4 plates (for 2 actuators)

CONTROL BOXES & ELECTRONIC BOARDS SPARE PARTS

MODEL	PICTURE	DESCRIPTION
PLBOX		control box inner protection compatible with "large control box & electronic boards CTH42;CTH44;CTH48
PLBOX 812		control box (cover + bottom) "Large"
PLBOX 818		control box (cover + bottom) "small"
TRASFO 105		trasformatore 230V 105W 0-12-24V outputs
TRASFO 105/110		toroidal transformer 110V 105W 0-12-24V outputs
CTH41		ELECTRONIC BOARD 12V
CTH42		ELECTRONIC BOARD 12V
CTH44		ELECTRONIC BOARD 12V
CTH48		ELECTRONIC BOARD 12V
CTH48 /24		ELECTRONIC BOARD 24V
CMBAT		ELECTRONIC BOARD-BATTERY CHARGER MODULE compatible with CTH42

DUCATI GATE OPERATORS: A GUARANTEE OF SAFETY & RELIABILITY IN FULL COMPLIANCE WITH THE EUROPEAN REGULATIONS

As Safety is of primary importance, DUCATI's is proud to ensure that his products and accessories comply with the latest European laws and machinery directives.

SAFETY AND FINAL INSPECTION

The manufacturer guarantees, as tested and certificate by NEMKO and INTERTEK regulators that their actuators, used with the original control units relative, when properly installed according to this manual are in compliance with the European standard EN 12445; EN 12453; EN 12635 and EN 13241-1

Note that the final machine is composed by the gate operator with the gate itself (structure). The installer by using a specific dynamometer, has to test and certify to the final user that the machine composed by the gate and the gate opener in their entirety, comply to the EU norms as required by the specific legislation.

The European Union has passed a series of laws which clearly regulate the automation industry. The full range of DUCATI's products has been not only tested but also certified by international bodies to comply EN12453 EN12445 norms and ready to be certified on site by the installers.

Any new or existing installation requires a declaration of conformity issued by the final installer. The installer must test the final machine and attest the compliance to the latest European standards concerning impact forces in case of obstacle detection. Tests must be performed with a dynamometer in precisely specified positions

DUCATI devices are ready to achieve total safety even when installing in a variety of contexts. Thanks to these standards many businesses in automation industry choose DUCATI technology to ensure their installations

We certify that the products listed in this manual are in compliance with EU norms:

EMC - COMPATIBILITA' ELETTROMAGNETICA

EN55014-1-2006+A1:2009
EN55014-2-1997+A1+A2:2008
EN61000-3-2:2006+A1+A2:2009
EN61000-3-3:2008

LVD - DIRETTIVA BASSA TENSIONE

EN60335 1-2001+A13 2008 + A14 2010
EN60335-2-103:2003 +A11 2009
EN62233-2008

NORMATIVA SICUREZZA DA IMPATTO

EN 13241-1:2003 +A1
EN12453:2000
EN12455:2000

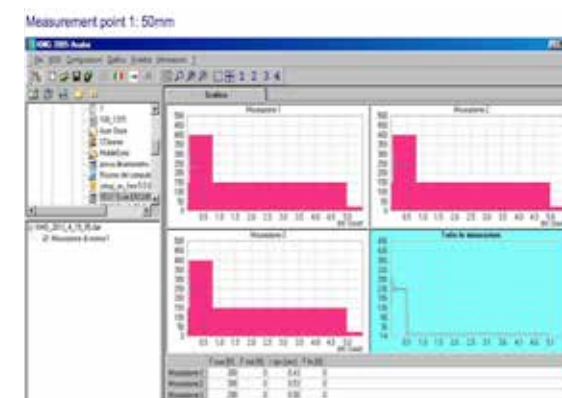
R&TTE - RADIO & TELECOMUNICAZIONI

EN301489-3V.1.4.1
EN 300 220-2V.2.1.2

FCC- USA COMMISSIONE TELECOMUNICAZIONI

FCC ID: OLS137925764 Washington laboratories tested * remote mod.6203

RoHS - RESTRICTION OF HAZARDOUS SUBSTANCES



MANUFACTURER'S LIMITED WARRANTY

1 The guarantee shall be liable only for defects which are due to manufacturing or material defects.

2 The warranty is valid for two years from date of purchase.

3 Manufacturing error should occur within this limited warranty period, the customer must report this immediately and before disassembling the product to the customer service of the dealer. The product should be returned to the manufacturer where it is tested. Before sending the product, the warranty request must be submitted to the manufacturer.

Transportation costs are charged to the customer .

The customer should enclose a brief description of the problem and the cash receipt as proof of warranty periode.

4 The manufacturer's obligation is limited to the repair or replacement of the product. A refund of the purchase price is not possible without specific agreement with manufacturer.

Defective parts will be repaired or replaced with new parts from the manufacturer

5 This limited warranty does not cover: Transport costs, maintenance costs of the product or installation , inspection or control of parts of the product for any reason whatsoever, within and outside the warranty period, shall be borne by the customer and never at the expense of the manufacturer.

6 This warranty does not apply interventions or modifications by unauthorized third parties or the end user, as well as improper or inadequate installation, it must be taken according to the installation instructions and use only as directed and use as described by the manufacturer .

Intentional or accidental damage , as described above, are not entitled to warranty.

7 There is no liability for :

a) installation , periodic inspection , maintenance, the costs for the installation of the repaired or replaced parts .

b) The warranty does not cover wearing parts, such as Fuses, batteries , brushes, bulbs , etc.

c) transportation costs, maintenance or installation, with respect to this product , for any reason whatsoever, including shipping back to the company , in or out of warranty are to be borne by the customer or selling dealer and never at the expense of the manufacturer.

d) misuse, improper installation , damage or malfunctions that are not due to product defects , damages that are due to external environmental influences of any kind , improper maintenance or repair , improper alteration to the product, with structural problems of pillars, gates , doors, etc.

e) Damage caused by fire, humidity , water, natural phenomena , thunderstorms , lightning

Radio interference or interference from other electrical devices ; shorts due to a wrong power connection or power fluctuations on the network as well as all other cases beyond the control of the manufacturer.

8 The warranty is subject to compliance with the technical characteristics and correct , proper installation according to instructions .

CUSTOMER CARE & ASSISTANCE

WORLDWIDE DELIVERY within 2/3 days

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we are a CUSTOMER-FRIENDLY company. Don't hesitate to contact us we speak English, français, Italiano, Deutsch

for any inquiry write to: info@ducatihome.it phone call: +39-335-1022019 / +39/0524-527967

PROBLEMS RELATED TO THE RADIO RECEPTION

SYMPTOM	POSSIBLE CAUSE	SOLUTION	See pag.
one of the radio remote controls is not working, while the other remote controls work properly	battery of the remote control is out of power/ has not enough power	replace the battery of the radio remote controls	
	elctronic board storage capacity is full	erase the memory on your electronic board and re-store the remote control button you want to use, taking care not to exceed the limit of storable codes. if you must use a greater number of remotes, add an external radio receiver model 6040rol or 6043 with dispaly	30
	defective or broken remote control	if under warranty send the remote control support for check and replacement. if out of warranty purchase a new remote control	30
any of the radio remote controls works	the radio controls were not stored in the automation control board	precautionary reset the memory of the electronic board of your opener, and then store one by one the radio control channels that you want to use.	30
	the radio control model used is not compatible with the electro-nic board	Be sure to use the original DUCATI remote controls and be sure to use a model of remote control compatible with your electronic board. The generation "CTR" boards use radio remote controls with fixed code 12-bit , while the "CTH" generation boards use radio rolling coded remote control.	30
	on board radio hybrid receiver damage	Contact the DUCATI official assistance centre. send the board to he assistance for repair in or out of warranty. If out of warranty radio receiver problem you can n also opt to buy an external radio receiver 6040rol or 6043 in order to avoid sending the damaged board to the service center. To check that the problem is on the hybrid radio receiver. Try to operate your gate opener commanded by wired control (use a keypad or bridge the "START terminals") to check the correct peration not radio control)	34-35
the radio remote controls only work at close range	battery of the remote control is out of power/has not enough power	replace the battery of the radio remote controls	
	radio interference	identify the cause of the interference / noise / barrier to radio reception and eliminate it	
	on board radio hybrid receiver damage	Contact the DUCATI official assistance centre. send the board to he assistance for repair in or out of warranty. If out of warranty radio receiver problem you can n also opt to buy an external radio receiver 6040rol or 6043 in order to avoid sending the damaged board to the service center	
The gate opens by itself	radio interference from other devices	Problems verifiable with radio 12-bit encoding openers only, which are subject to interference from other radio devices. it is suggested to change the system with a radio rolling code version that with over 3 billion continuously changing code guarantee absolute protection.	

OTHER TYPE OF PROBLEMS

SYMPTOM	POSSIBLE CAUSE	SOLUTION	See pag.
the gate opens but does not close and photocells are not installed	photocells bridge do not make contact or has been removed	re-place the photocell's bridge that keeps closed the photocell contact on your electronic board. and check the contact face properly.	
the gate opens but does not close and photocells are installed	error in connecting/wiring the photocells	Check that you are using compatible photocells to your electronic board model (note low consumption photocell model 7120 are only compatible with electronic board CTH44 & CTH48. Check the photocells wiring: it could be incorrect . Check the wires are not interrupted.	36-37
	photocells are not aligned	Check that the photocells are correctly aligned	
	photocells are dirty inside or outside	Open the photocells and check that there is no dirt or insects inside them. Clean the photocells, but maintain them aligned.	
both doors open, but only one closes;	relay stucked	contact Ducati's after sale service for under warranty or out of warranty repair	
una sola anta apre completamente ma la seconda non effettua alcun movimento	relay stucked	contact Ducati's after sale service for under warranty or out of warranty repair	
one door completely open but the second does not perform any movement	you commanded the pedestrian opening cycle (only one wing M1 opens partially)	use another remote control button to control the full cycle opening	
the gate opens but stops the movement before the mechanical stop	Wrong motor power/ obstacle sensitivness Adjustment	increase the power by turning the potentiometer clockwise to increase the power and reduce the obstacle detection sensitiveness	
the leaf is moving too fast and slams on the setback	Not ideal actuator's fixing position on the pillar (measures A & B) are not the ideal ones)	change the position of the fixing brackets by choosing a location which results in an increased use of the piston stroke. With CTH48 card template regulate the beginning of the slowdown to a smooth stop of the movement on the mechanical stop. For large gate wings you could evaluate to add an electrolock.	6-8
Qualsiasi altro problema o malfunzionamento	To be analyzed with Ducati technicians first	send an e-mail to info@ducatihome and describing your problem. It is important to indicate your gate opener model or at least your motor + electronic board model and date of purchase.	

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